

Biopsychosocial Articulation of Acute Anxiety and Depressive Symptoms in an Above-Average-Achieving Undergraduate Student

A Case Study

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Abstract

The case study involves the biopsychosocial approach and multidisciplinary assessment and treatment of a 19-year-old first-year engineering student who presents with acute anxiety, panic attacks, low & sad mood, and involuntary visual imaginations. His problems were aggravated when he joined a highly ranked and prestigious university. Not being able to cope with the mental pressure from heavy academic pressure and family expectations. He was

receiving medication, individual cognitive behavioural therapy (CBT), and psychoeducation for his parents. He has improved a lot with regular medications, counselling sessions with the client, and with his parents. The case recommends that prevention & care be taken more seriously in a competitive academic environment than in vulnerable situations.

Keywords: multidisciplinary assessment; mental health; cognitive behavioral therapy (CBT) ; counselling; higher education

1. Introduction

A major stressor is the transition from secondary school to higher education, particularly for pupils from a rural background, where there is limited exposure to the outside world & where the child was constantly under the influence of parents, to a world of unlimited exposure to competition. The combination of strong academic pressure, perfectionism, and a childhood in which affection was conditional on performance may result in acute emotional dysregulation. This report is an exploration, through a stress–vulnerability lens, of how early experiences, high-stakes testing, and a few maladaptive coping habits converged to place one student in crisis during the first semester of college.

3. Methods

3.1. Client identification and demographics

X is a 19-year-old unmarried male from a rural background in one of the Indian states. He is a first-year undergraduate studying Chemical Engineering at a prestigious technical institute, and he describes himself as introverted.

3.2. Case history and chief complaints

X approached the institute's mental health service after a sudden onset of disabling distress. His main complaints were:

- Recurrent, involuntary and distressing visual images;
- Intense, pervasive fear broken by sudden episodes of panic;
- Physical signs of autonomic arousal, mainly palpitations and restlessness;
- Frequent crying spells and badly disrupted sleep;
- A persistent sense of inadequacy that fed much of the distress.

3.3. History of present illness

X's acute problems started on 26 August, shortly after he left for campus. The fight-or-flight nature of this episode is clearly described in institutional records and was characterised by extreme fear, anger, and frustration. At the peak of it, he said that he had fleeting suicidal ideas, feelings of isolation from his parents, and periods of confusion in the midst of a normal conversation. He felt more reactive than usual to comments from one of his cousins, who was living in the same hostel, and was unable to express his feelings, fearing he might be perceived as unproductive.

His vitals were normal on first medical evaluation except for mild hypertension (BP 140/84 mmHg) and sinus tachycardia (heart rate 120 bpm), and his oxygen saturation was 99% on room air. There was no prior psychiatric history or significant co-occurring medical history. Acute symptoms were successfully treated initially with a low dose of olanzapine (5 mg). (Institute, 2025).

3.4. Family history, personal, and developmental history

X was brought up in a rural family. His father is a member of the paramilitary forces and is often away for extended periods, while his mother is a homemaker and is also involved in the family's farming and livestock management. There was a previous neonatal death in the family.

He also met all his developmental milestones, never late and was always a stellar student in school. He said he had had a vague, harmless visual experience since childhood, but it had never interfered with his daily life until now.

Positive memories were mostly related to academic success and interaction with extended family. In contrast, he recalled being beaten by his mother as a child and that, in general, his parents' affection was linked to his academic performance. How this might have paved the way for perfectionism, self-worth fluctuating with success, and an acute sensitivity when things go wrong isn't difficult to understand.

3.5. Academic and psychosocial course.

Upon completing Class XII, X took a gap year and went to a coaching hub in Kota to prepare for the Joint Entrance Examination (JEE). He was very disciplined at first, but eventually he began to see some unhealthy behaviours occurring, such as:

- Heavy use of his phone and online gaming;
- Irregular sleep and poor eating, with some weight gain;
- Mounting procrastination, trailed by guilt and low mood.

He did well in the first phase of the JEE examination (99.52 percentile) but slipped in the advanced phase. He didn't disclose this to his parents and went back home to prepare for the examination. What he really wanted was Computer Science at one of the top institutes in a particular location. But he received an offer for Computer Science at another campus of that institute, which he rejected due to its location. He enrolled at the desired location but in a different course, i.e., Chemical Engineering. He mentioned that his dad was disappointed for not getting admission in computer science at the desired location, which made him more aware of his guilt, shame, and academic failure.

4. Assessment

4.1. Mental status examination (MSE)

At the baseline assessment, the following was found:

1. **Appearance and behaviour:** well-groomed and appropriately dressed, cooperative, able to build adequate rapport, psychomotor activity was normal.
2. **Speech:** Coherent and relevant, slightly distractible.
3. **Mood and affect:** subjectively low mood, with an objectively constricted, narrow affect.
4. **Thought process:** He was occasionally loosely associated, mildly distractible, but very receptive to cognitive work.
5. **Thought content:** preoccupied with achievement, fear of disappointing his parents, guilt, transient self-harm thoughts emerged in the midst of acute crises and were otherwise recurrent involuntary imagery. No set delusions, but he was inclined to overestimate his intelligence, for example, by setting his own intelligence higher than that of his peers and his relatives.
6. **Perception:** No formal thought disorder or hallucinations.
7. **Cognition and insight:** sensorium clear; orientation, attention, concentration, and memory intact; reality testing preserved. He had a real insight into the psychological aspects of his problems.

4.2. Behavioural observations and defences

In session, X often spoke on highly scientific or philosophical grounds, and when probed, his understanding of what he was discussing was sometimes more superficial than his presentation suggested. It was read as intellectualisation and rationalisation, processes that put a distance between himself and the feelings, fragility, and loneliness that he could not easily tolerate.

4.3. Qualitative testing – Human Figure Drawing (HFD) (Kendig, 1963).

Human Figure Drawing was used as a qualitative supplement to the clinical picture, not as a measure in its own right. The main observations and how they were read are summarised below.

Drawing feature	Clinical reading
Large, out-of-proportion head	Points to a heavy reliance on thinking and intellect as the main w
Fragmented/dotted body outline	Suggests emotional vulnerability and a shaky, poorly bounded se
Smiling face	Read as an attempt to mask deeper distress, in keeping with his c
Outstretched but rigid arms	A wish for connection held in check by real discomfort with emo
Little background or detail	The narrowing of focus and emotional constriction that tends to c

Table 1. Observations made based on the features of Human Figure Drawing

4.4. Case conceptualisation (biopsychosocial formulation)

X's presentation is most appropriate within a biopsychosocial model rather than a traditional stress–vulnerability model.

- **Predisposing Factors:** Biological susceptibility for high autonomic reactivity (fast heartbeat and increased blood pressure when stressed) in combination with perfectionism, conditional self-worth (self-worth based on performance), and introversion. The other elements were early use of corporal punishment and a household where love followed achievement.
- **Precipitating Factors:** It was the disappointment of not getting a Computer Science seat at the desired institute, coupled with his father's public discontent over the Chemical Engineering seat, and the usual upheaval of leaving home for a high-pressure hostel.
- **Perpetuating Factors:** The coping that kept things going: intellectualisation – a way to smother feelings, continued withdrawal – from peers, active distortion – all or nothing thinking, catastrophising, poor lifestyle habits – broken sleep, gaming as an escape.
- **Protective Factors:** strong baseline intelligence, normal reality testing, very good insight, and a true desire to be treated.

4.5. Diagnostic formulation

When considered in combination, these features indicate a particular image. The panic, the autonomic arousal (tachycardia, mild hypertension), the persistent low mood, the intrusive imagery and the avoidance, all in the absence of primary psychotic features, fit a mixed presentation of acute anxiety and depressive symptoms arising from adjustment difficulties in someone with a perfectionistic personality structure. (Association, 2022).

5. Interventions

Therapy lasted for months and followed three tracks: psychiatric, psychological, and familial.

5.1. Pharmacological management

The psychiatric work was directed towards the alleviation of the acute symptoms, reduction of anxiety, and restoration of sleep. The psychiatrist on hand titrated and monitored the following:

- **Anxiety and panic:** escitalopram (an SSRI) for core anxiety and depressive features, and clonazepam on a short taper on close monitoring for acute panic.
- **Stabilisation/sedation:** low-dose quetiapine as a sedative/anxiolytic.
- **Daytime alertness:** modafinil, selectively added to help combat daytime sleepiness and get back to studying.
- **Nutritional support:** vitamin E and a multivitamin are recommended.

5.2. Cognitive Behavioural Therapy (CBT)

X was given individual weekly CBT focused on changing underlying beliefs and achieving more stable emotional regulation. The work went through about four stages.

1. **Psychoeducation and stabilisation (1–2 weeks).** The initial sessions introduced him to the cognitive–autonomic (cognitive–somatic) model of anxiety, bringing his 120 bpm heart rate into a new perspective – a predictable response of his autonomic nervous system, which meant it was not an indicator of danger. Sleep hygiene was improved, screen time reduced, and the intrusive imagery explained as a consequence of hyper-arousal, not psychosis.
2. **Cognitive restructuring (weeks 3–6).** The central distortions on which this stage worked were the all-or-nothing thinking (e.g., “If I can't be in Computer Science, I'm a total failure”) and catastrophising. At this point, his thoughts were being challenged, and work was underway to enhance his self-worth.
3. **Behavioural Activation and Graded Exposure (week 7-10).** A step-by-step activation plan was developed with a 'graded' exposure in the real world to the situations he had avoided – low-level interactions with peers and family members to break the isolation cycle.
4. **Autonomy and relapse prevention (from week 11 onwards).** Subsequent sessions (more exploratory) led him to clarify his own aspirations and his parents' aspirations, and a relapse prevention plan outlined early warning signs and concrete steps.

5.3. Family Focused Intervention

In parallel, X's parents took part in psychoeducation sessions, focused on:

- Relieving the performance pressure and criticism;
- Changing from negative to positive and supportive communication;
- To remove some of the guilt of not getting admission in Chemical Engineering.

6. Evaluation of Outcomes and Current Status

The improvement was gradual and, up to now, permanent.

- **Symptoms:** The panic attacks disappeared, and the physical symptoms of arousal returned to normal. The intrusive imagery became much less and less emotional.
- **Behaviour and thinking:** X maintained or adhered to a structured daily routine, engaged in healthier self-care behaviours, and was able to catch and/rework his own automatic negative thoughts to a greater extent. He became considerably less reliant on intellectualisation, more realistic, and less deluded in his self-evaluation.
- **Function:** X returned to campus and full-time study, with maintenance of psychiatric and psychological follow-up.

7. Discussion and Clinical Implications

There are a few outcomes to learn from, not just for clinicians but for academicians and families, too.

- **Institutional Transition Frameworks:** Universities should have a culturally sensitive process in place to help students transition from rural areas to highly demanding urban environments. The difference is more significant than it appears, and if it is not managed appropriately, then the issue arises.
- **Incorporating Universal Screening:** Technical institutions could include brief, non-stigmatising psychological screening as part of their health intake process, allowing them to identify early warning signs of burnout, sleep disturbances, and/or secret grade-level changes before they spiral out of control.
- **Shared Institutional Responsibility:** Coaching hubs, such as in Kota, have a very concrete nature here. They have to be able to balance rigour with emotional support and facilitate low barriers to access to help.
- **Developmental Parental Psychoeducation:** The family system should be in constant awareness to maintain a healthy mental state throughout the lifespan, particularly during a child's developmental years. They need to be mindful of how this type of conditional love can be subtly passed on and create the type of perfectionism and vulnerability as shown in this case.
- **Curricular Preventive Mental Skills:** Integrating simple emotion-regulation skills and techniques (mindfulness, distress tolerance, problem-solving, etc.) into the regular school curriculum will enhance a child's 'soft skills' for coping with psychological stressors.

8. Conclusion

As this case illustrates, it is not only intelligence that is important for long-term academic achievement but also resilience and emotional flexibility. Mental health and achievement do not have to be in competitive mode; rather, they need to move in the same direction for the betterment of a human life. This would help educational institutions have fewer students falling into an acute state of anxiety, depression, and adjustment crises.

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