# Diagnostic overlap between adolescent affective instability in borderline personality and juvenile bipolar disorder in Sri Lanka

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#### **Abstract**

Borderline personality disorder (BPD) and bipolar disorder (BD) could present a diagnostic challenge in the adolescent due to the presence of overlapping symptoms such as impulsivity, affective instability, and sexual arousal. Of these symptoms, affective instability is a central feature of BPD, and there is a rapid shift from the neutral affect to an intense affect, and this is associated with a dysfunctional modulation of emotions. We describe three Sri Lankan adolescents presenting with affective instability, treated with psychopharmacological agents as for BD.

While BPD is characterized by transient mood shifts induced by interpersonal stressors, in BD, there are sustained mood changes. A longitudinal assessment of the symptomatic profile and collateral information clarified the diagnosis as being BPD. An examination of the nature of affective instability is vital for a proper diagnosis and provision of evidence-based treatment.

Key words: Borderline personality disorder, bipolar disorder, adolescent, Sri Lanka

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### Introduction

Borderline personality disorder (BPD) is a psychiatric disorder that is known to have a pervasive pattern of instability in affect regulation, problems in interpersonal relationships, deficits in impulse control, and unstable self-image (1). This personality disorder has led to concerns for mental health services due to the associated high risk of self-harm and suicide, impairment in psychosocial functioning, and a high burden on families (2-4). The research done on BPD in Sri Lanka is limited. In a study published in 2016, Perera found a 35% prevalence of BPD in young substance users in individual rehabilitation centres in Sri Lanka (5). Further, in a study among female offenders in Sri Lanka, BPD was diagnosed among 8% of the participants admitted to a forensic inpatient unit (6).

Bipolar disorder (BD) is a mood disorder that is known to impair youth behaviour, family, and social functioning (1,7). There is recent literature on BD from Sri Lanka, despite the absence of more extensive epidemiological studies. The impact of BD is higher on the person and families due to the relapsing nature of the illness. A Sri Lankan study reports that more than half the patients experience their first relapse of BD within 2-5 years from

the onset of illness (8). Family members of the patient are at risk at times, as manic relapses maybe associated with violent behaviour. A Sri Lankan study has revealed significantly higher rates of unemployment, harmful use of alcohol, absence of confiding relationships and violence risk scores in participants with a positive family history of BD (9).

The World Health Organisation defines adolescents as individuals between the ages of 10-19 years (10). Both BPD and BD could begin to show initial symptoms during this period of transition. Of these symptoms, affective instability is considered to be a central feature of BPD (11). Affective instability is a psychopathological feature seen with a complex construct that includes primary and secondary emotions. Each emotion has its characteristics, amplitude, and duration (12). There is a rapid shift from the neutral affect to an intense affect, and this is associated with a dysfunctional modulation of emotions. This clinical phenomenon is often confused with mood lability, as in bipolar disorders (12). Affective instability is highest in persons with BPD at a young age, and declines with ageing (13). Apart from BPD, affective instability is seen in BD. However, affective instability in BPD is more associated with interpersonal events than in BD (14).

Differentiating BPD from BD in young people is a clinical challenge, due to the presence of overlapping symptoms such as impulsivity, emotional and affective instability, irritability and sexual arousal (15). Because of these overlapping symptoms, there is a claim that BPD and BD lie in a singular spectrum. However, recent neuroimaging studies have revealed that they have distinct grey matter volume and grey matter density patterns (16). Yu et al. in a meta-analysis reported that BPD showed decreased grey matter volume and grey matter density in the bilateral medial prefrontal cortex, bilateral amygdala and right parahippocampal gyrus, while BD was associated with decreases in the bilateral medial orbital frontal cortex, right insula and right thalamus (16).

Complex presentations of affective instability in adolescence could be misdiagnosed and could deprive the patient of evidence-based treatment. This could be further complicated in Sri Lanka due to limited child and adolescent mental health services (17,18). We could not access any publications on this diagnostic overlap from Sri Lanka. Here we describe three adolescents with affective instability, treated as for BD. Written informed consent from the parents and adolescents obtained prior to clinical assessments and publication.

## Case Report 1

A 15-year-old girl presented with a four-week history of school refusal. Her parents reported that she had frequent intense arguments with them about non-significant daily matters. On further assessment, there was history suggestive of poor impulse control, leading to verbal and physical aggression towards the family members and three episodes of deliberate self-harm by self-cutting during the past three years. She stated that she had a feeling of emptiness within her despite being supported by her family. Clinical observations and collateral information revealed that she had rapid mood changes, ranging from brief dysphoria to marked irritability. At times there were disinhibited behaviours, with her approaching adult male strangers. She was an adoptee, had been exposed to violence in early life and was noticed to have a difficult temperament since early childhood, with frequent tantrums and frustration intolerance. Recently she had been seen by a psychiatrist and had been commenced on lithium carbonate as for BD. Her symptomatology did not change after being treated with lithium for six months.

# Case Report 2

A 16-year-old boy presented with episodes of shortlasting anger, irritability and truancy in the context of frequent interpersonal conflicts with his school peers and parents. He often idealised some of his school colleagues, labelling them as 'true friends'. However, almost always, these friendships ended with bitter conflict and devaluation. He frequently threatened to commit suicide when his parents did not meet his demands for expensive mobile phones. He was suspicious that his peers at school were jealous of him and were plotting against him. However, these beliefs were transient and not firmly held. Despite this belief, he wanted to be admired by his peers and felt distressed when they ignored him. According to his parents, he had been exposed to severe emotional abuse and verbal harassments by a teacher when he was in primary school. This adolescent had been diagnosed with BD and was on lithium and risperidone for 12 months, with no noticeable improvement in his mental state.

### Case Report 3

The third adolescent was a 16-year-old girl who presented with repeated acts of deliberate self-harm for one year by overdosing on paracetamol tablets. All these episodes of self-harm followed conflicts with her current and exboyfriends and her attempts to re-establish these relationships. These incidents happened against a background of many relationship break-ups and with severe distress, including verbal, physical and online aggression towards those close to her. She also had brief episodes of affective instability ranging from dysphoria to irritability. In addition to short-lasting episodes of excessive anxiety, she had a long-standing sense of disconnection and loneliness. She had been diagnosed with BD and had been treated with sodium valproate and olanzapine for six months with no clinical improvement.

All of the three adolescents described above had been followed up for more than 12 months and were subsequently diagnosed to have borderline personality disorder according to the 5th edition of the Diagnostic and Statistical Manual of Mental Disorders of the American Psychiatric Association (DSM 5) (1).

### Discussion

These case reports demonstrate how affective instability could present in adolescence. The mood changes could easily suggest a clinical picture of a mood disorder. BPD may have substantial phenomenological overlap with BD, as mood lability and impulsivity are common in both conditions (1). For a diagnosis of BD, the symptoms must represent a distinct episode, and the affect change should be clearly over the baseline (1). It is recommended that a diagnosis of a BPD should not be made during an untreated mood episode (1).

The described adolescents had a prominent irritable mood. In a study conducted in Brazil, it is reported that 92% of the patients with juvenile BD under the age of 15

years had an irritable mood during a relapse (19). Geoffroy et. al., report that juvenile BD is a difficult diagnosis to make as the primary symptoms vary much from the typical disorder in adulthood (20). According to this review, the euphoric mood is rare in juvenile BD, and aggressiveness, irritability, rapid cycling, violent outbursts and a chronic course of symptoms are more prevalent (20). Even though the three reported adolescents presented with prominent irritability, the carefully taken longitudinal clinical history did not demonstrate an episodic affective pattern and features of BPD became evident with collateral information.

The adolescents we describe had instability in their affect. Their affect changed from dysphoric spells to irritability within a short period. BPD is frequently confused with BD type II because of their symptomatic overlap. Paris and Black in 2015 state that affective instability is a prominent feature of each; however, the pattern is entirely different. BPD is characterised by transient mood shifts induced by interpersonal stressors, such as in the described histories, whereas in BD, there are sustained mood changes (21). All three of the adolescents we described had been prescribed mood stabilisers and/or antipsychotics. Likewise, a hasty diagnosis in an adolescent with affective instability could deprive the patient of potentially effective treatment, such as psychotherapy for BPD and also expose them to unwanted psychopharmacological effects (21).

The three adolescents reported above had been prescribed mood stabilisers as for BD. Ruggero et. al., found that nearly 40% of patients with BPD had been previously misdiagnosed as BD (22). Nevertheless, Zimmerman and Morgan reviewed existing literature and reported that approximately 10% of patients with BPD had comorbid BD I and another 10% had BD II disorders (23). Two of the adolescents reported histories of childhood adversities and early life stress in the form of emotional abuse and neglect is more common in BPD compared to BD (24).

In conclusion, a detailed clinical assessment comprising of collateral information is necessary to diagnose adolescents with affective instability. Further, the mental health professional needs to consider the symptomatic longitudinal profile of the patient before making a definitive diagnosis. It would be valuable to do a prospective cohort study of adolescents with affective instability to identify unique patterns of this phenomena in the Sri Lanka sociocultural context.

### **Conflicts of interest**

None declared

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