

## **Borderline Personality Traits and Smartphone Addiction: An Interventional Case Study**

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### **Abstract:**

Smartphone addiction has been associated with emotional dysregulation and impulsive behaviors among individuals with borderline personality traits. These individuals typically exhibit heightened emotional reactivity, poor impulse control, and difficulty maintaining stable relationships. This case study evaluates the impact of a self-structured, multifaceted intervention designed to reduce symptoms of smartphone addiction and enhance emotional regulation in a young female presenting with borderline personality disorder (BPD) traits.

### **Case Presentation:**

A 19-year-old female presented with mood dysregulation, impulsivity, and compulsive smartphone use, which adversely affected her academic performance and social functioning. Clinical assessments indicated the presence of BPD traits along with problematic digital behavior. Baseline evaluations included standardized measures: emotional regulation assessed by the Difficulties in Emotion Regulation Scale-18 (DERS-18), impulsivity measured by the Barratt Impulsiveness Scale Version 11 (BIS-11), and smartphone addiction evaluated using the Smartphone Addiction Scale Short Version (SAS-SV).

**Intervention:** The participant underwent a three-week, multifaceted program comprising mindfulness training, structured exercise, and emotional engagement activities, all designed to promote self-awareness and self-control.

**Outcomes:**

post-intervention assessments demonstrated a marked reduction in smartphone use, improvement in emotional regulation, and a noticeable decrease in impulsivity. The participant reported enhanced mood stability, improved concentration, and greater involvement in offline activities.

**Conclusion:**

This case highlights the potential effectiveness of short-term, targeted interventions in mitigating smartphone addiction among individuals with underlying BPD traits. Targeted strategies focusing on emotional regulation and impulsivity control may offer promising outcomes in similar clinical cases.

**Keywords:** Emotional dysregulation, impulsivity, smartphone addiction, borderline personality.

## Introduction

Science and technology have undeniably made life more comfortable; however, they have also introduced potential negative effects. Nowadays, the smartphone is not merely considered a gadget; it has become an integral part of daily life. Many individuals find it difficult to function without their smartphones. Overuse of smartphones leads to neurological, psychological, educational, and social issues. Students are a vulnerable group for smartphone addiction, which leads to cognitive impairments, emotional disturbances, sleep disturbances, and deteriorating social relationships. <sup>[1]</sup>

All social media platforms are designed to target the brain's dopamine reward system, especially the ventral tegmental area of the midbrain, which is responsible for dopamine production. This reward system induces a sense of pleasure, encouraging repeated smartphone use. Overuse leads to overstimulation and eventual desensitization of this system <sup>[2]</sup>. Students affected by this condition often disengage from real-life challenges, seeking escape through excessive smartphone use and digital engagement.

The rapid increase in smartphone usage has raised concerns about behavioral addictions, especially among adolescents. Symptoms can be intensified in individuals with underlying personality vulnerabilities, particularly borderline personality disorder (BPD), which is characterized by emotional dysregulation, impulsivity, unstable relationships, and identity disturbances. <sup>[3]</sup>

Emotional dysregulation and impulsivity are core features of both BPD and behavioral addictions. Individuals with BPD traits may use smartphones compulsively as a maladaptive coping mechanism

to manage distress or feelings of emptiness. This further reinforces impulsive behaviors and emotional instability, creating a cycle of digital dependency.<sup>1</sup>

Borderline traits are not specific to one domain, but they cover emotion, impulse, body, and relationships. A wide range of interventions can be used to manage these presentations more commonly cognitive behavioral therapy (CBT), mindfulness training, and exercise-related therapies.

CBT addresses cognition-behavior. Whereas mindfulness focuses mainly on awareness – emotion.

<sup>[5]</sup> Exercise-related therapies focused on body awareness and mood. Each of these interventions has specific advantages and limitations, so there is a need for a multimodal system of intervention.

This case study presents a three-week interventional approach incorporating evidence-based techniques, including mindfulness training, emotional engagement training, and exercise training.

This multimodal system provides a layered intervention that targets mind, body, and emotional circuits simultaneously. The aim was to evaluate the effectiveness of a self-structured, multifaceted intervention program in reducing emotional dysregulation and impulsivity in a female with BPD traits and smartphone addiction and to assess short-term outcomes in psychological well-being and behavioral control.

**Case presentation:** The case involves a 19-year-old female, Ms. X, an undergraduate South Indian, middle-class student who presented with complaints of extreme lethargy, lack of focus in her studies, emotional instability, and frequent relationship issues, and she stated that, “After touching the phone, all my plans collapsed.” She was using a smartphone for 10–12 hours daily and viewing primarily non-academic digital content such as social media, YouTube, WhatsApp, and Instagram.

She previously described her as over-talkative and extroverted, showing early signs of impulsivity and aggression. She had frequent episodes of mood shifts, intense fear of abandonment, and

overeating during emotionally charged situations. She had chronic feelings of emptiness, heightened sensitivity to rejection, and occasional self-harming ideations.

**Clinical history and presenting concerns:** She self-reported that her exposure to video games and social media began as early as the first grade of school. Emotional and behavioral dysregulation became evident by the 6th standard, with frequent crying spells, mood shifts, and social isolation. After the 10<sup>th</sup> standard, her academic performance declined gradually due to a lack of focus.

She used her phone (up to 10-12 hours/day) for social media like Facebook, Instagram, YouTube, and WhatsApp, and was involved in non-educational content. She had aggressive behavior (breaking objects, frequent fights, shouting). Trust issues, emotional instability, crying spells, and low frustration tolerance. Her relationship pattern was switching interpersonal interest from person to person, unstable attachments, being easily influenced by peers, and social isolation. She had bilateral shoulder pain and tears in her eyes while watching a blue screen. Her weight was 78 kg, height 160 cm, and BMI 30.4 (obese), and she had sleep disturbance. Parental discord with frequent fights. Her father had a history of alcoholism and extramarital affairs, and her mother had an overinvolved and controlling parenting style and advised her to deactivate social media; the patient showed demotivation. She preferred Junk food and a non-vegetarian diet.

Psychological observation revealed that she had frequent emotional outbursts, low self-control, Feelings of abandonment, poor self-image, and heightened emotional sensitivity, especially toward family criticism, which was associated with inconsistent behavior in academic and career planning.

As shown in Table 1, the participant meets several DSM-IV criteria for borderline personality disorder

<b>Table -1 Borderline Personality Disorder DSM-IV Criteria</b>	
A. A pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:	
1. Frantic efforts to avoid real or imagined abandonment. Note: Do not include suicidal or self-mutilating behavior	She showed distress when she was scolded by her mother or rejected by a peer. During emotional triggers, she broke objects and became aggressive, which indicated her fear of abandonment.
2. A pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of idealization and devaluation.	She was peer-influenced and constantly shifted her interest from person to person every two months. She sought validation through social media and friendships.
3. Identity disturbance: markedly and persistently unstable self-image or sense of self.	Over time, her priorities and self-image shifted once a consistent topper in academics, she later lost direction and became heavily influenced by fashion, dressing style, and peer approval.
4. Impulsivity in at least two areas that are potentially self-damaging (e.g., spending, sex, substance abuse, reckless driving, binge eating). Note: Do not include suicidal or self-mutilating behavior.	She displayed impulsivity, using her phone from 11 p.m. to 2 p.m. and again after 7 a.m. She consumed Junk food frequently, visited malls, theaters, and often showed signs of an eating disorder with no interest in nutrition.
5. Recurrent suicidal behavior, gestures, or threats, or self-mutilating behavior.	She also reported suicidal thoughts, particularly during the period of conflict with her mother.

<p>6. Affective instability due to a marked reactivity of mood (e.g., intense episodic dysphoria, irritability, or anxiety usually lasting a few hours and only rarely more than a few days).</p>	<p>She frequently experienced emotional crises, during which she cried, talked excessively, and appeared tearful during evaluations. Emotional dysregulation was evident along with aggressive outbursts and frequent mood shifts.</p>
<p>7. Chronic feelings of emptiness.</p>	<p>She constantly used her phone, switched social circles often, and displayed an obsession with virtual validation, which reflected an inner void. And social isolation.</p>
<p>8. Inappropriate, intense anger or difficulty controlling anger (e.g., frequent displays of temper, constant anger, recurrent physical fights).</p>	<p>She broke objects, had aggressive outbursts toward her mother, refused to follow instructions, and expressed rebellion.</p>
<p>9. Transient, stress-related paranoid ideation or severe dissociative symptoms.</p>	<p>She experienced distrust and fear of loss due to frequent parental conflicts and her father's extramarital issues. She had a history of broken trust and emotional withdrawal.</p>

**Investigations:** No formal imaging or laboratory tests were performed. Diagnosis was established based on clinical assessment, structured interviews, and validated psychological tools, like smartphone addiction. DERS-18, BIS-11, and the scale – short version assessing emotional regulation, impulsivity, and digital usage patterns.

**Clinical Diagnosis:** Based on clinical assessments, semi-structured interviews, and validated scales, the patient was provisionally diagnosed with borderline personality traits characterized by emotional instability and impulsive behavior with smartphone addiction. The diagnosis was made by a psychiatrist holding an MD in psychiatry with over 10 years of clinical experience in treating mood disorders, personality disorders, and addiction.

**Intervention:** This single-subject interventional case study was conducted over a period of three weeks with the aim of improving emotional regulation and reducing impulsivity in a young female with features of borderline personality disorder and smartphone addiction. Analyze the root cause of smartphone addiction from neurological, psychological, educational, and social perspectives. A multifaceted, person-centered intervention model was employed, combining three components, namely mindfulness training, exercise training, and emotional engagement training. It has three phases of duration of 1 week each. Each phase has duration of 15 minutes daily before commencing classes in the morning. The total duration of this intervention was 3 weeks. This intervention protocol was developed and administered by the primary investigator with 15 years of clinical and teaching experience in neurological Physiotherapy. Intervention was given to the case as shown in Table 2.

Table 2. Intervention Protocol	I Week	II Week	III Week
<p><b>Phase I</b></p> <p>Mindfulness Deep Breathing Exercise - 7 repetitions in 5 min</p> <p>2. Super Brain Yoga-14 repetition - 7min</p> <p>3. Motivational Self-talk-3 repetitions in 3min</p>			
<p><b>Phase II</b></p> <p>Smile meditation-5 min</p> <p>2. Feldenkrais Method-7repetitions in7 min</p> <p>3. Water prayer-3 min</p>			
<p><b>Phase III</b></p> <p>1. Vagus Nerve Stimulation (VNS) practice -4 min</p> <p>2. Dance- Speed 110-160 BPM, 7 min, lively upbeat</p> <p>3. Gratitude writing- 5 individuals or 5 valued objects in 4min</p>			

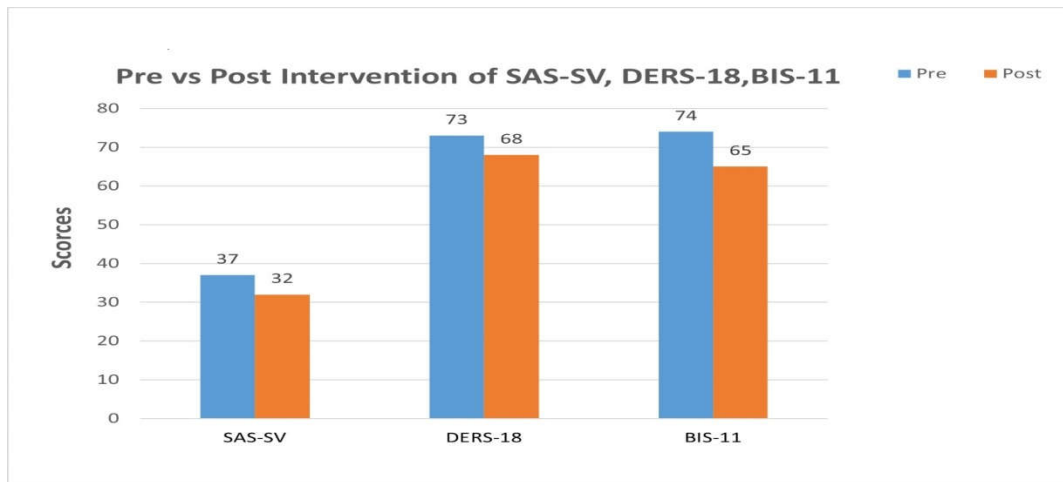
**Significance of this program:** time-efficient design, multi-dimensional cause analysis, customized holistic intervention, non-technical and inclusive, scalable, and adaptable.

**Outcome Measure: The Smartphone Addiction Scale – Short Version (SAS-SV)** uses a 6-point Likert scale (1=strongly disagree to 6=strongly agree) for each of its 10 questions. Total scores range from 10 to 60; a score >33 for females indicates the level of problematic smartphone use <sup>[6]</sup>, indicating

smartphone addiction. Her pretest score was 37, and her post-test score was 32. This indicates she had come out of problematic smartphone use.

**The Difficulties in Emotion Regulation Scale-18 (DERS)** is a simplified version of the original DERS-36, a 36-item scale. It is an 18-item questionnaire designed to assess difficulties in emotion regulation. The DERS-18 is divided into six subscales, each with three items, and uses a five-point Likert scale to measure responses, ranging from "almost never" to "almost always".<sup>[7]</sup> Scores range between 18 and 90. Higher scores indicate difficulty in emotional regulation. Her pretest score was 73 and her post-test score was 68. There was an improvement, but not yet in low dysregulation territory.

**The Barratt Impulsiveness Scale Version 11 (BIS-11)** is a gold-standard measure that has played a key role in studies of impulsivity and its biological, psychological, and behavioral correlates.<sup>[8]</sup> The total score ranges between 30 and 120. Scores are typically interpreted within the context of a normative sample, with the most common interpretations being 0-51 low impulsivity, 52-71 average impulsivity, and >72 high impulsivity. Her pretest score was 74 and her post-test score was 65, indicating a clinically meaningful reduction of impulsivity. The pre- and post-test scores of the Smartphone Addiction Scale – Short Version, Difficulties in Emotion Regulation Scale-18, and Barratt Impulsiveness Scale Version 11 are shown in Figure 1.



**Fig.1. Pre- and Post-Intervention Scores on Smartphone Addiction scale –short version SAS-SV, Difficulties in Emotion Regulation DERS-18, and Barratt Impulsiveness Scale-11 BIS-11**

**Follow-up:** At the 3-week follow-up, the patient demonstrated reduced phone usage (from an average of approximately 10 hours per day to 4 hours per day), improved emotional awareness, and increased engagement in alternative activities such as meaningful conversations with friends and gardening. The patient continues with planned maintenance sessions once weekly with ongoing monitoring for 6 weeks and 3-month intervals.

**Adherence and Tolerability:** Attendance was tracked, and she attended 85% of scheduled sessions. No adverse effects were reported during intervention sessions. Initially, the patient described difficulty with mindfulness training, but her tolerance improved over 3 weeks.

#### **Discussion:**

This study examined the impact of Yuva Sakthi Program on smartphone addiction in a person with borderline personality disorder exhibit symptoms of emotional instability, impulsive phone use, unstable relationships, and feelings of emptiness. The Post intervention finding showed a significant reduction in BIS, DERS, and SAS-SV scores indicating improvements in inhibitory control, emotional regulation skills, and self-management of technology use. These results support the hypothesis that a multidimensional program

blending mindfulness, movement-based learning, emotional engagement techniques, and validation training formed meaningful psychological and behavioral benefits.

#### **Reduction in Impulsivity (BIS-11 Scores)**

Post-intervention reductions in the Bharat Impulsiveness Scale suggest that SSSP effectively enhances executive control, attention stability, and delayed responding. Modules like mindfulness breathing, smile meditation, Vagus nerve stimulation, and movement practices like Super brain Yoga and the Feldenkrais-based movement through awareness enhanced improvements in regulation of prefrontal cortex, conforming with evidence that mindfulness training reduces impulsivity by strengthening top-down inhibitory control (Tang et al., 2015).

Likewise, physical practices promote somatosensory awareness and cognitive flexibility, mechanisms shown to reduce impulsivity and enhance planning. Motivational self-talk may have further reinforced self-regulatory linguistic mediation, which leads to decrease impulsive behavior

#### **Reduction in Emotion Dysregulation (DERS-18 Scores)**

Substantial enhancement on the Difficulties in Emotion Regulation Scale-18 suggests that SSSP facilitated to gain greater emotional control, awareness, impulse control, and strategy access during stress. Mindfulness breathing practices and Vagus nerve stimulation increased parasympathetic activity, causing emotional down-regulation. Validation practices—including teacher validation and parent-student validation showed noticeable improvement in emotional acceptance and diminished non-acceptance of emotional experiences. Research shows that emotional validation raises perceived safety, promotes self-stabilizing, and limit maladaptive responses to distress (Shenk & Fruzzetti, 2011). This integrates with the current findings, indicating that SSSP strengthens both internal emotion regulation skills and external social-emotional support systems

#### **Reduction in Smartphone Addiction (SAS-SV Scores)**

The apparent decline in SAS-SV scores indicate meaningful improvements in behavioral self-control, diminished compulsive checking, and greater awareness of digital habits. Since impulsivity and emotion

dysregulation are strong influencing factor of smartphone addiction (Cho, J., & Kim, H. 2025), SSSP's effectiveness in enhancing these mechanisms indirectly supports reductions in addictive behaviors.

Furthermore, mindfulness and gratitude writing marginally lowered automatic behavioral loops by increasing meta-awareness of nudge, while emotional engagement training supported mood stabilization, reducing reliance on smartphones for escape or emotion regulation. The findings integrate with earlier studies showing mindfulness training reduces technology addiction by facilitating self-monitoring and lowering emotional reactivity (Kim, J., Lee, S., & Son, S. (2022). The present study outcomes implied that the program strengthened key control mechanisms—emotional control, cognitive inhibition, and behavioral self-checking—which are central determinants of excessive digital engagement. This interpretation is supported by previous research showing that DBT-based interventions targeting mindfulness, emotion regulation, and distress tolerance reduce impulsivity and maladaptive coping (May & Richard, 2016) and that Trans diagnostic DBT approaches enhance impulse control and adaptive functioning across disorders involving dysregulation (Vincenta, 2024). Additionally, current digital addiction research identifies emotional instability, impulsive traits, and unhealthy digital engagement patterns as primary drivers of problematic smartphone behavior (Duradoni, 2025), fitting with the mechanisms improved in this study. Similarly, integrative adolescent interventions that strengthen emotional regulation and cognitive control have been shown to reduce internet addiction and high-risk impulsive behaviors (Mohamedpour, 2024). Consistent with this literature, the SSSP's multimodal mindfulness, movement awareness, and validation components appear to directly modify known risk mechanisms, leading to meaningful reductions in problematic smartphone use.

Mindfulness, deep breathing, and smile meditation act effectively in reducing physiological arousal and increasing present-moment awareness. These practices help in interrupting dissociative or impulsive smartphone usage patterns by improving attention and calming emotional states. <sup>[9, 10]</sup>

Super Brain Yoga, an ancient bio-energy technique, helps to increase writing alertness and emotional well-being. By engaging in bilateral stimulation and squatting synchrony, the client

reported enhanced cognitive clarity and improved impulse regulation post-practice. <sup>[11]</sup> Motivational self-talk supported the cognitive restructuring of internalized negative beliefs. Self-directed affirmations appeared to buffer against emotionally reactive behaviors typically triggered by perceived rejection on social media. <sup>[12]</sup> The use of the Feldenkrais Method (movement through awareness) bridged somatic regulation and emotional expression. These body-based interventions enabled the release of somatic tension and promoted the integration of suppressed affective experiences, especially helpful for managing the intense mood shifts often seen in borderline. <sup>[13]</sup> Gratitude was employed to shift cognitive focus from perceived deficits and emotional emptiness to appreciation and relational value. This contributed to improved interpersonal perspectives and emotional tone. <sup>[14]</sup> Water Prayer and Vagus Nerve Stimulation (through humming and diaphragmatic breath) supported parasympathetic activation, reducing hyper arousal and fostering emotional resilience. This contributed to more adaptive emotional responses and reduced craving for smartphone-driven dopamine stimulation. <sup>[15]</sup> Dancing functioned both as an emotional release and a pleasurable, non-digital dopamine-regulating activity. Replacing screen time with embodied joy contributed to reductions in daily smartphone usage duration and enhanced mood regulation <sup>[16]</sup>. In this case, there was an observed improvement in emotional regulation and reduction of impulsivity and phone addiction by the use of psychotherapeutically informed body-mind intervention. Crucially, the integration of gratitude writing, somatic mindfulness, and self-talk with trauma-informed care is particularly suitable for emotionally sensitive individuals with high affective instability. While each component individually targets a specific domain. Here, a multifaceted approach reduced the negative loop, somatic intervention regulated arousal, and expressive practices promoted relational healing. Multi-targeted systems of intervention had an impact on the cognitive system, emotional system, neurobiological system, behavioral system, and somatic and spiritual system. Hence, this approach is suitable for individuals with borderline traits who present

with complex and overlapping vulnerabilities. The present study extends this literature by demonstrating that a multicomponent, culturally adapted program Yuva Sakthi program can produce improvements across multiple domains simultaneously in student populations. Unlike single-method interventions, SSSP integrates mindfulness, somatic practices, emotional engagement, and validation, resulting in broader improvements across cognitive, emotional, and behavioral domains.

**Patient perspective:** She said, “I feel energetic, and my mind is refreshed without a phone” during the second week of intervention.

**Limitations of the study:**

1. Findings based on a single participant, so the results cannot be generalized to a wider population.
2. The study primarily used questionnaires and behavioral observations, with no physiological or neuropsychological measures.

**Conclusion:** The findings from this interventional case study suggest that targeted emotional regulation and impulse control interventions can be effective in managing smartphone addiction in individuals with borderline personality traits. By addressing the psychological underpinnings, such as emotional instability and impulsivity, therapeutic efforts can reduce maladaptive behavioral patterns and promote healthier functioning. This case underscores the necessity for personalized, therapeutically informed approaches when treating behavioral addictions co-occurring with personality dysfunction. Further research with larger samples is recommended to validate the observed improvements and to explore the scalability of such interventions in broader clinical populations.

**Consent and ethical approval:** A Written informed consent was obtained from the participant. Ethical approval was received from the Institutional Review Board (ISERB, No-PhD/ISERB/2024/002), and participant declaration for publication was obtained.

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## Appendix -1

**Table-3 Methodology overview of the Yuva Sakthi Program intervention study**

<b>Section</b>	<b>Details</b>
Study Design	Single-case interventional study with pre and post-assessment.
Objective	To evaluate the effectiveness of the Student Successful Shakti Program (SSSP) in reducing impulsivity, emotional dysregulation, and smartphone addiction among adolescents.
Participant	One adolescent student (case study) exhibiting emotional dysregulation, impulsive behavior, and problematic smartphone use With BPD
Setting	School setting; sessions conducted in a quiet room with periodic involvement of parents and teachers.
Intervention Name	Student Successful Shakti Program (SSSP).
Intervention Duration	3 weeks
Intervention Frequency	5 sessions per week, 15 minutes each
Intervention Components	1. Mindfulness Training. 2. Exercise Training 3. Emotional Engagement Training 4. Validation Training
Theoretical Basis	(a) Cognitive–behavioral self-regulation theory, (b) Mindfulness-based neurocognitive control, (c) Vagal-toning emotional regulation models, (d) Somatic learning and sensorimotor integration (Feldenkrais), (e) Behavior reinforcement theory (parent/teacher validation).
Outcome Measures	1. Bharat Impulsiveness Scale: Measures cognitive, motor & non-planning impulsivity. 2. DERS (Difficulties in Emotional regulation Scale): Teacher/observer rating of behavioral regulation (adjust name if you provide full form). 3. Smartphone Addiction Scale – Short Version (SAS-SV): Measures severity of problematic smartphone use.
Data Collection Points	Pre-intervention baseline (T1) → Post-intervention outcome (T2). Add follow-up if applicable
Data Analysis	Descriptive comparison of pre–post scores; qualitative notes on behavioral changes; interpretation based on established mechanisms
Ethical Considerations	Informed consent from student, informed consent from parent; confidentiality maintained; non-invasive, low-risk training methods.
Implementation Support	Parent monitoring, teacher validation, daily self-practice log.

**Table-4 Outcome Measures and constructs assessed in the Yuva Sakthi Program**

Outcome measure	Construct assessed	Operational definition	Domains/subscales	Reliability/ Validity Evidence
1. Bharat Impulsiveness Scale (BIS)	Impulsivity	Tendency to act on urges quickly without adequate reflection or consideration of consequences.	Cognitive impulsivity, Motor impulsivity, Non-planning impulsivity	Internal consistency typically $\alpha = .70-.82$ ; widely used among Indian adolescents; acceptable test-retest reliability. (Sharma, P., & Singh, R 2019)
2. DERS (Difficulties in Emotion Regulation Scale)	Emotion dysregulation	Degree of difficulties in understanding, accepting, and managing emotional experiences, especially during stress.	6 Core Subscales: <b>Non-acceptance</b> of emotional responses <b>Goals</b> – difficulty engaging in goal-directed behavior <b>Impulse</b> – difficulty controlling impulsive behavior <b>Awareness</b> – lack of emotional awareness <b>Strategies</b> – limited access to emotion-regulation strategies <b>Clarity</b> – lack of emotional clarity	High internal consistency ( $\alpha \approx .93$ overall). Subscale $\alpha = .80-.89$ . Strong construct and convergent validity (Gratz & Roemer, 2004). Widely validated across cultures.
3. Smartphone Addiction Scale – Short Version (SAS-SV)	Smartphone addiction / problematic use	Severity of uncontrolled smartphone use characterized by compulsive checking, withdrawal, tolerance, and daily-life interference.	Daily-life disturbance, Withdrawal, Overuse, Tolerance, Positive anticipation, Cyberspace-oriented relationship	High internal consistency ( $\alpha = .91$ ). Validated for adolescents (Kwon et al., 2013). Strong predictive and criterion validity

### CARE Checklist

Item	Topic	Checklist item description	Line/page
1	<b>Title</b>	The words “case report” should be in the title, along with the area of focus	Page 1
2	<b>Keywords</b>	Four to seven keywords—include “case report” as one of the keywords	Page 2
3a	<b>Abstract</b>	<b>Background:</b> What does this case report add to the medical literature?	Page 1
3b		<b>Case Presentation:</b> chief complaint, diagnoses, interventions, and outcomes	Page 1
3c		<b>Conclusion:</b> What is the main “take-away” message from this case?	Page 2
4	<b>Introduction/background</b>	The current standard of care and contributions of this case—with references (1-2 paragraphs)	Page 3
5	<b>Timeline</b>	Information from this case report is organized into a timeline (table or figure)	Not applicable
6a	<b>Patient Information</b>	De-identified demographic and other patient or client-specific information	Page 4
6b		Chief complaint—what prompted this visit?	Page 4
6c		Relevant history, including past interventions and outcomes	Not applicable
7	<b>Physical Exam</b>	Relevant physical examination findings	Page 5
8a	<b>Diagnostic</b>	Evaluations such as surveys, laboratory testing, imaging, etc.	Page 7
8b	<b>Assessment</b>	Diagnostic reasoning, including other diagnoses considered and challenges	Not applicable
8c		Consider tables or figures linking assessment, diagnoses, and interventions	Page 7
8d		Prognostic characteristics, where applicable	Not applicable
9a	<b>Interventions</b>	Types such as lifestyle recommendations, treatments, medications, and surgery	Page 8,9
9b		Intervention administration, such as dosage, frequency, and duration	Page 8,9
9c		Note changes in intervention with explanation	Not applicable
9d		Other concurrent interventions	Not applicable
10a	<b>Follow-up and</b>	Clinician assessment (and patient or client assessed outcomes when appropriate)	Page 10
10b	<b>Outcomes</b>	Important follow-up diagnostic evaluations	Page 10
10c		Assessment of intervention adherence and tolerability, including adverse events	Page 10
11a	<b>Discussion</b>	Strengths and limitations in your approach to this case	Page 11
11b		Specify how this case report informs practice or Clinical Practice Guidelines (CPG)	Page 11
11c		How does this case report suggest a testable	Not

		hypothesis?	applicable
11d		Conclusions and rationale	Page 12
12	<b>Patient Perspective</b>	When appropriate, include the assessment of the patient or client on this episode of care	Page 12
13	<b>Informed Consent</b>	Informed consent from the person who is the subject of this case report	Page 13
14	<b>Additional Information</b>	Acknowledgment section; Competing Interests (Conflict of Interests statement); IRB approval, (Ethical Committee Approval) when required	Page 13

