

REVIEW ARTICLE



Problematic internet use and borderline personality features: A systematic review informed by the alternative model of personality disorders

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ABSTRACT

Background and Aims: Associations between problematic internet use (PIU) and borderline personality disorder (BPD) have been reported, but the literature is highly heterogeneous, with some studies assessing overall BPD severity and others examining individual traits (e.g., emotional lability, impulsivity, dissociation). This review synthesizes these approaches using the Alternative Model of Personality Disorders (AMPD), examining how BPD-relevant pathological personality traits (Criterion B) and impairments in self and interpersonal functioning (Criterion A) relate to PIU. **Methods:** Following PRISMA 2020 guidelines, we searched PsycINFO, Web of Science, PubMed, Embase, and Scopus for studies examining associations between PIU (e.g., general use, social media, gaming, smartphone use) and personality traits or functioning in adults. Study quality was assessed using the NIH Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies. **Results:** Thirty studies ($N = 21,358$) met inclusion criteria. Emotional lability and impulsivity showed the most consistent associations with PIU across outcome types. Few studies examined impairments in personality functioning, but available evidence suggests that identity disturbance may predict PIU over time and that interpersonal dysfunction is associated with greater use of online environments for reassurance and emotion regulation. Associations involving dissociation and detachment were relatively weak and less consistent. **Discussion and Conclusions:** Studies varied widely in design, measures, and theoretical approach, limiting direct comparison across studies. Despite this heterogeneity, findings indicate that emotional lability, impulsivity, and identity disturbance appear to represent transdiagnostic vulnerabilities that increase risk for PIU and shape patterns of online engagement.

KEYWORDS

problematic internet use, borderline personality disorder, alternative model of personality disorders

INTRODUCTION

Problematic internet use (PIU) refers to a maladaptive pattern of engagement in internet-based activities that results in distress or functional impairment (Block, 2008; Ko et al., 2009; Shapira et al., 2003; Spada, 2014). Although Internet Gaming Disorder is included in the DSM-5-TR as a condition for further study, PIU more broadly encompasses a heterogeneous range of behaviors (e.g., social media use, online shopping, pornography use), and is not currently defined as a formal diagnostic category (American Psychiatric Association, 2013, 2022; Fineberg et al., 2022; Spada, 2014). As a result, PIU is typically conceptualized dimensionally, with ongoing debate regarding its boundaries and underlying mechanisms (Aboujaoude, 2010).

At the same time, the public health relevance of PIU is increasingly evident. Global screen time increased during the COVID-19 period, and continuing technological advances, including smart devices, AI assistants, and virtual or augmented reality, have further

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entwined daily life with digital platforms (Király et al., 2020; Montag & Hegelich, 2020; Trott, Driscoll, Irlado, & Pardhan, 2022). In 2023, the U.S. Surgeon General issued an advisory on the mental health risks associated with social media, highlighting concerns about excessive and dysregulated use (Murthy, 2024; Office of the Surgeon General, 2023). This combination of high clinical relevance and low nosological consensus underscores the need to clarify which traits and processes confer susceptibility to PIU in order to improve detection and inform interventions (Aboujaoude, 2010; Fernandes, Maia, & Pontes, 2019; Fineberg et al., 2022).

Etiological theories of PIU

Conceptual models of PIU—including the Compensatory Internet Use model (Kardefelt-Winther, 2014) and the I-PACE model of behavioral addictions (Brand, Young, Laier, Wölfling, & Potenza, 2016, 2019)—emphasize difficulties with self-regulation under conditions of distress, with reinforcement processes contributing to the maintenance of problematic use. These frameworks describe PIU (and problematic gaming) as arising from dynamic interactions between relatively stable person-level vulnerabilities (e.g., personality traits, psychopathology), affective and cognitive responses (e.g., craving, expectancies), and executive control processes (Brand et al., 2016, 2019; Dong & Potenza, 2014; Kardefelt-Winther, 2014).

Personality traits have been proposed as one class of person-level vulnerabilities relevant to PIU (Durak & Senol-Durak, 2014; Hidalgo-Fuentes & Fernández-Castilla, 2024). In particular, personality traits and impairments commonly associated with borderline personality disorder (BPD)—including emotion dysregulation, impulsivity, identity disturbance, and interpersonal sensitivity—have been linked to problematic social media use, gaming, and generalized PIU (Collins & Grant, 2025; Gioia, Rega, & Boursier, 2021; Schimmenti et al., 2021; Sevintuna, Bornovalova, & Salomon, 2024).

Personality factors and borderline personality traits

Within the BPD literature, Linehan's (1993) biosocial theory posits that traits of heightened emotional sensitivity and impulsivity interact with invalidating environments to create patterns of emotion dysregulation and maladaptive coping behaviors that intensify over time (Crowell, Beauchaine, & Linehan, 2009). Although this model was developed to explain the etiology of BPD rather than PIU, it highlights similar mechanisms to I-PACE, including heightened emotional reactivity, difficulty modulating distress, and reliance on maladaptive coping behaviors (Linehan, 1993). This mechanistic convergence suggests that similar underlying processes may be operating across PIU and BPD, even though the literatures on these disorders are often separate.

In the few studies explicitly studying the overlap between PIU and BPD, researchers have found significant associations between severity scores on BPD trait measures and PIU severity (Chen, Hsiao, Liu, & Yen, 2019; Lu et al., 2017).

Moreover, recent reviews have highlighted strong associations between PIU and emotion dysregulation (Gioia et al., 2021) and impulsivity (Ioannidis et al., 2019; Li, Ren, Chiu, Wang, & Lei, 2021), both of which have been identified as core pathological personality traits in dimensional models of BPD (American Psychiatric Association, 2013, 2022; Mulay et al., 2019). Together, these findings highlight both conceptual overlap and empirical associations, but do not clarify the nature of the relationship.

Several explanatory possibilities may account for these associations. First, BPD-related traits may function as vulnerability factors for PIU, particularly in contexts where online environments are used to cope with distress (Brand et al., 2016; Kardefelt-Winther, 2014). Second, features of online environments—such as anonymity, reduced social cues, and increased opportunities for social comparison—may elicit disinhibition or heightened interpersonal reactivity (Suler, 2004; Vogel, Rose, Roberts, & Eckles, 2014), potentially producing behavior that resembles aspects of borderline pathology. Third, shared underlying vulnerabilities—such as emotion dysregulation, inhibitory control difficulties, or identity disturbance—may contribute to both PIU and BPD traits, reflecting broader transdiagnostic processes implicated across many forms of psychopathology (Aldao, Nolen-Hoeksema, & Schweizer, 2010; Beauchaine, Zisner, & Sauder, 2017; Kotov et al., 2017). In this account, associations may reflect the influence of common underlying liabilities rather than a direct relationship between PIU and BPD diagnosis. The present review examines these possibilities within a dimensional framework to clarify how BPD-relevant vulnerabilities and mechanisms relate to PIU. Importantly, this review does not conceptualize PIU as an expression of personality pathology per se. Rather, personality traits and impairments are examined as vulnerability factor that may influence the development, maintenance, and expression of problematic patterns of online engagement.

Notably, the literature at the intersection of PIU and BPD is methodologically and conceptually heterogeneous. The PIU literature itself varies widely in its definitions, measures, and study populations, with many studies assessing subclinical patterns of use (Fineberg et al., 2022; Kuss & Lopez-Fernandez, 2016). The personality disorders literature presents similar challenges (Kim & Tyrer, 2010). Increasingly, personality pathology is conceptualized dimensionally, with pathology existing along a continuum with normative personality variation rather than as discrete diagnostic categories (American Psychiatric Association, 2013, 2022; Hopwood, Mulay, & Waugh, 2019; Krueger, Derringer, Markon, Watson, & Skodol, 2012; Widiger & Costa, 1994). This shift reflects longstanding limitations of categorical models of personality disorders, including high comorbidity, arbitrary diagnostic thresholds, and limited precision in traditional categorical measures (Krueger & Markon, 2006; Widiger & Trull, 2007).

Within this context, studies examining BPD vary widely in their conceptual approaches, with some studies using categorical, DSM-based approaches, and others utilizing

dimensional, trait-based measures (Leichsenring et al., 2024; Vanwoerden & Stepp, 2022). In addition, some studies assess traits and processes that are conceptually central and relevant to BPD pathology (e.g., emotion dysregulation, impulsivity) without explicitly measuring BPD diagnoses or symptoms (Southward & Cheavens, 2018; De Francisco Carvalho, Pianowski, Bacciotti, & Reis, 2018). When considered alongside the heterogeneity in PIU, this results in a collective literature that spans multiple levels of analysis and is not easily synthesized using categorical frameworks alone.

To facilitate comparison across this heterogeneous body of work, the present review uses the Alternative Model of Personality Disorders (AMPD) as an organizing framework. The AMPD conceptualizes personality pathology in terms of Criterion A impairments in personality functioning (i.e., identity, self-direction, empathy, and intimacy) and Criterion B maladaptive personality traits (e.g., emotional lability, anxiousness, separation insecurity, depressivity, impulsivity, risk taking, and hostility) (American Psychiatric Association, 2013, 2022; Krueger et al., 2012). This framework provides a structured way to synthesize findings across studies assessing BPD-relevant constructs at both the trait and diagnostic levels.

Using this approach, the present systematic review synthesizes evidence on associations between BPD-relevant personality features and PIU, examining (a) which trait domains and facets are most consistently associated with PIU, (b) how impairments in self and interpersonal functioning relate to problematic use, and (c) how methodological differences contribute to variability in findings.

METHODS

Literature search

The current review was conducted applying the PRISMA guidelines (Page et al., 2021). Systematic searches for articles were conducted using five electronic databases: PsycINFO, Web of Science, PubMed, Embase, and Scopus. Search terms were adapted to meet specific requirements of each database (see Table 1). The last search was performed on March 18, 2025. No restriction on date of publication was applied. Reference lists of the included studies and other reviews were also searched manually to identify additional studies. While this review was not preregistered, a predefined protocol was used to guide study selection, data extraction, and synthesis.

Study selection

Covidence was used to facilitate the screening process. A total of 2,996 records were imported for initial screening, and 1,190 duplicates were removed. Titles and abstracts were screened independently by the first and second authors to identify studies for full-text review. Full-text articles were also independently assessed by both raters for inclusion.

Table 1. Database search strings

PubMed	((“problematic internet use” [Title/Abstract] OR “internet addiction” [Title/Abstract] OR “excessive internet use” [Title/Abstract] OR “compulsive internet use” [Title/Abstract] OR “internet gaming disorder” [Title/Abstract] OR “social media addiction” [Title/Abstract] OR “digital addiction” [Title/Abstract] OR “smartphone addiction” [Title/Abstract]) AND (“borderline personality disorder” [MeSH] OR “BPD traits” [Title/Abstract] OR “emotion *regulation” [Title/Abstract] OR “impulsiv*” [Title/Abstract] OR “affective instability” [Title/Abstract] OR “self-harm” [Title/Abstract] OR “dissociat*” [Title/Abstract] OR “distress tolerance” [Title/Abstract])) AND (humans [MeSH] AND English [lang])
PsycINFO	SU (“Internet addiction” OR “problematic internet use” OR “social media” OR “compulsive internet use” OR “excessive internet use” OR “smartphone addiction”) AND SU (“Borderline Personality Disorder” OR “BPD traits” OR “impulsiv*” OR “affective instability” OR “emotion *regulation” OR “distress tolerance”)
Embase	(‘problematic internet use’/exp OR ‘internet addiction’/exp OR ‘compulsive internet use’/exp OR ‘internet gaming disorder’/exp OR ‘social media addiction’/exp OR ‘smartphone addiction’/exp) AND (‘borderline personality disorder’/exp OR ‘bpd traits’ OR ‘impulsivity’/exp OR ‘emotion regulation’/exp OR ‘emotion dysregulation’/exp OR ‘distress tolerance’/exp OR ‘dissociation’/exp OR ‘self-harm’/exp) AND [humans]/lim AND [english]/lim
Scopus	TITLE-ABS-KEY (“problematic internet use” OR “internet addiction” OR “internet gaming disorder” OR “social media addiction” OR “compulsive internet use” OR “excessive internet use” OR “smartphone addiction”) AND TITLE-ABS-KEY (“borderline personality disorder” OR “BPD traits” OR “emotion *regulation” OR “impulsiv*” OR “affective instability” OR “self-harm” OR “dissociat*” OR “distress tolerance”) AND (LIMIT-TO (LANGUAGE, “English”))
Web of Science	KP=(“problematic internet use” OR “internet addiction” OR “internet gaming disorder” OR “social media addiction” OR “compulsive internet use” OR “excessive internet use” OR “smartphone addiction”) AND KP=(“borderline personality disorder” OR “BPD traits” OR “emotion *regulation” OR “impulsiv*” OR “affective instability” OR “self-harm” OR “distress tolerance” OR “dissociat*”)

Discrepancies at both stages were resolved through discussion and consensus between raters.

Interrater reliability was moderate at the title/abstract stage (observed agreement = 84.5%; Cohen’s κ = 0.46) and strong at the full-text stage (observed agreement = 97.6%; Cohen’s κ = 0.82) (McHugh, 2012). Study selection is summarized in the PRISMA flow diagram (Fig. 1).

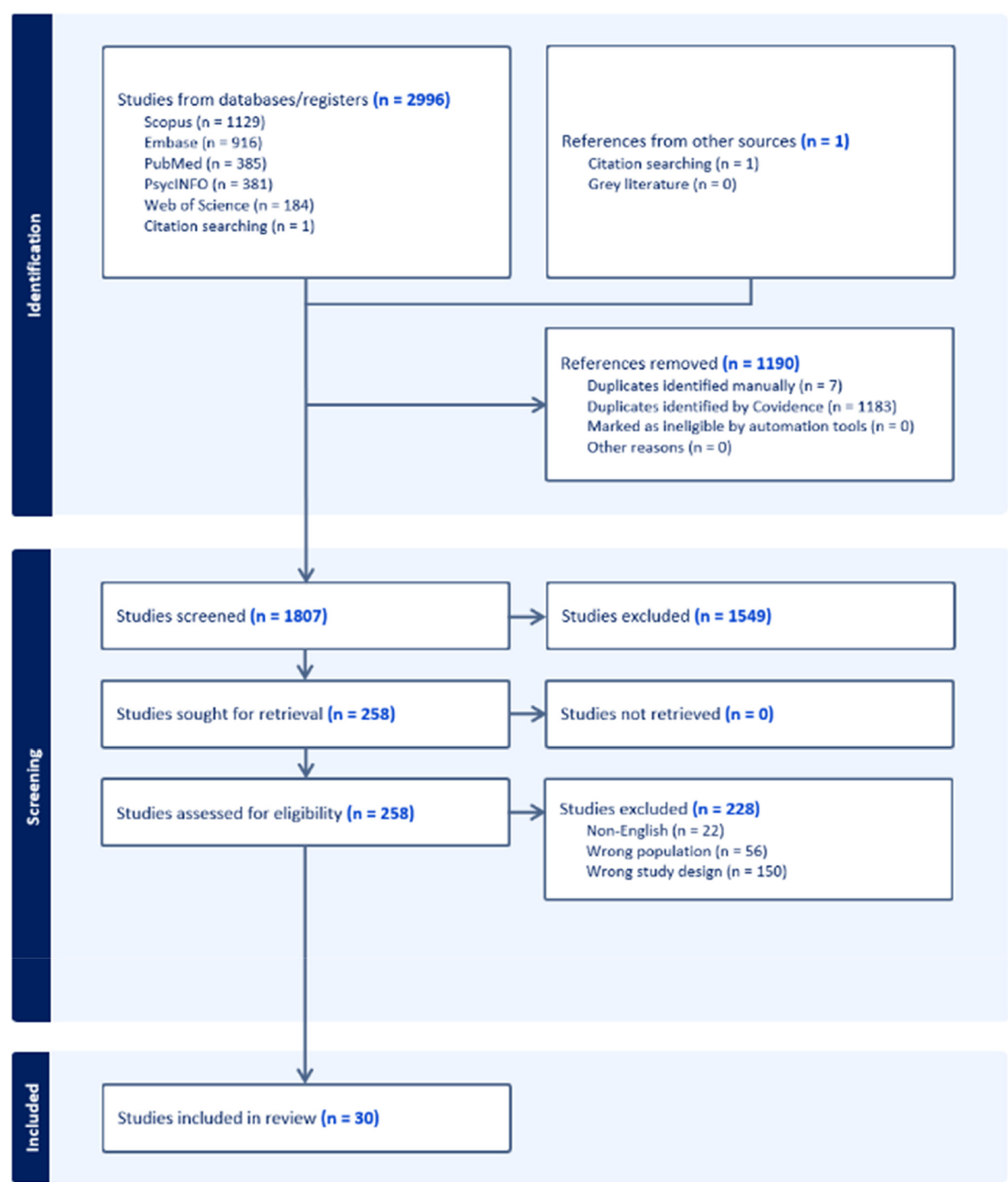


Fig. 1. Summary of search methodology

Inclusion/exclusion criteria

Studies were required to meet the following inclusion/exclusion criteria:

- 1. *Participants.* Studies of adults of mixed samples with a mean age ≥ 18 recruited from community, university, or

clinical settings. Studies sampling only adolescents (<18) were excluded.

- 2. *Trait measures.* Studies were required to include at least one AMPD-aligned BPD-relevant, personality traits using a validated self-report or interview measure that could be mapped to one or more Criterion B domains

(i.e., Negative Affectivity, Disinhibition, Detachment, Antagonism, or Psychoticism), or Criterion A (i.e., Identity, Self-direction, Empathy, Intimacy), OR at least one DSM-based BPD screening or severity measure (e.g., MSI-BPD, BSL-23, etc.)

3. *Types of PIU measures.* Studies were required to include at least one validated measure of problematic internet-related behaviors, including general PIU, problematic social media addiction (SMA), problematic gaming, or problematic smartphone use. Other behaviors (e.g., gambling, shopping, pornography use) were excluded, as these behaviors are not inherently internet-based, and their respective assessments are rarely internet-specific. Although related to PIU, cyberchondria was also excluded, as its associations with health anxiety and obsessive-compulsive symptoms may suggest a distinct underlying pattern of personality traits that falls beyond the scope of the current review (Fergus & Russell, 2016; Starcevic, Berle, & Arnáez, 2020).
4. *Types of studies.* Eligible studies were observational cross-sectional, cohort, or case-control studies.
5. *Language.* Only studies published in English were included.

Data extraction

Data were extracted by the first author using a structured coding form. Although a second independent extractor was not included due to feasibility constraints, several steps were taken to enhance transparency and reproducibility, including (a) use of a structured, standardized coding form using predefined variables; (b) documentation of coding decisions and justifications for ambiguous cases (see Appendix 1A); (c) periodic consultation with co-authors to review coding decisions. Extracted variables included study design and sample characteristics, BPD-relevant and PIU measures, analytic approach, covariates, effect estimates, and significance values.

BPD-relevant measures were mapped using the AMPD as an organizing framework. Measures were grouped into three categories: (a) maladaptive personality traits (Criterion B), (b) impairments in personality functioning (Criterion A), and (c) global measures of BPD severity. Appendix 1A provides a comprehensive mapping of all included BPD-relevant measures and their corresponding classifications.

Criterion B variables were mapped onto the five AMPD maladaptive personality trait domains (Negative Affectivity, Detachment, Antagonism, Disinhibition, Psychoticism), and when possible, to lower-order trait facets (e.g., emotional lability, separation insecurity, impulsivity, risk taking, hostility) based on the Personality Inventory for DSM-5 (PID-5) framework (American Psychiatric Association, 2013, 2022; Krueger et al., 2012). This mapping included both studies that directly assessed AMPD/PID-5 traits and those that assessing conceptually linked proxies (e.g., emotion dysregulation mapped to emotion lability; Carpenter & Trull, 2012). When measures did not explicitly reference the AMPD, coding decisions were guided by consulting the AMPD literature, with periodic consultation with co-authors

to ensure conceptual alignment. Criterion A was similarly operationalized based on indicators of impairments in identity, self-direction, empathy, and intimacy, based on the DSM-5-TR Section III (American Psychiatric Association, 2013, 2022), and the Levels of Personality Functioning Scale (LPFS) framework (Morey, 2017).

Variables assessing BPD global severity, including traditional DSM-based screening measures, structured diagnostic interviews, and dimensional measures producing a composite score of BPD symptomology were extracted and analyzed as a separate category, as their content cuts across multiple Criterion B traits and Criterion A impairments that cannot be collapsed into any one domain or facet (Mulay et al., 2019). This approach allowed us to include diagnostically based and composite measures that are clearly relevant to borderline pathology while avoiding forced or artificial mapping to trait or functioning domains.

Quality assessment

Methodological quality and risk of bias was appraised using the 14-item National Institutes of Health (NIH) Quality Assessment Tool for Observational Cohort and Cross-sectional Studies (National Institutes of Health, 2021), selected because the included studies were heterogeneous in design. The tool provides design-specific items (e.g., items assessing temporality, adequacy of follow-up) and allows for “Not applicable” ratings, so only the items pertinent to each study’s stated design were rated. For example, cross-sectional studies had follow-up items coded as “Not applicable,” while longitudinal analyses were rated on temporality and follow-up.

For each included study, each item on the NIH tool was rated as “Yes,” “No,” “Not applicable,” or “Not reported” by the first author, and a total quality score was derived from dividing the number of items rated “Yes” by the total number of applicable items. Studies were then categorized as “Good,” “Fair,” or “Poor” using pre-specified thresholds and a critical flaw override: Good ($\geq .75$ and no critical flaws), Fair (.50–.74 and no critical flaws), Poor ($< .50$ or any critical flaw). Critical flaws included use of non-validated exposure or outcome measures; participation $< 50\%$ without analysis of nonresponse; failure to address basic confounders when statistically feasible; or fundamental model-outcome mismatch. Studies were not excluded based on quality; however, all summaries were repeated in Good-only, Adjusted-only, and Good-and-Adjusted subsets. In practice, the primary factors that distinguished “Good” studies from “Fair” studies were (a) reporting participation rate; (b) providing sample size justification or power description; (c) statistically adjusting for the impact of potential confounding variables; and (d) reporting Cronbach’s α for key scales.

RESULTS

Study characteristics

Thirty studies met inclusion criteria, representing 21,358 participants (median $n = 392$; range = 156–7,726).

Demographic and clinical characteristics of all included studies are presented in Table 2. Publications spanned 2009 to 2025, with most appearing in the past decade (median year = 2019). Most studies were cross-sectional (26/30; 86.7%), while four were longitudinal (13.3%). Recruitment was primarily from universities (18/30; 60%), followed by community or online samples (6/30; 20%), crowdsourced platforms such as Prolific or MTurk (3/30; 10%), and clinical or mixed populations (3/30; 10%).

Geographically, studies were concentrated in the United States (6/30; 20%), Italy (6/30; 20%), Turkey (5/30; 16.7%), and Taiwan (4/30; 13.3%), with fewer studies from Canada (2/30; 6.7%), Germany, Iran, France, China, Australia, and the United Kingdom (each 1/30; 3.3%). One study recruited a large international sample spanning 14 countries (Laconi et al., 2025). Most samples were majority female (22/30; 73.3%); one study recruited only women (3.3%), and the remaining seven (23.3%) were gender-balanced or did not report gender composition. Only 8 of 30 studies (26.7%) reported race/ethnicity, all of which were conducted in North America and described predominantly White samples, limiting cross-cultural generalizability (see Table 2).

Measurement of problematic internet use

General PIU was the most frequently examined outcome (15/30; 50%) and was typically assessed using the Internet Addiction Test (IAT; Young, 1998). Culturally adapted or parallel instruments included the Internet Addiction Scale (IAS; Canan, Ataoglu, Ozcetin, & Icmeli, 2012; Dalbudak, Evren, Aldemir, & Evren, 2014) for Turkish samples and the Chen Internet Addiction Scale (CIAS; Chen et al., 2019; Lu et al., 2017; Wu, Ko, & Lane, 2016; Wu, Ko, Tung, & Li, 2016) for Chinese and Taiwanese cohorts. Shortened derivatives, such as the IAT-SF (Kavaklı et al., 2024) and the Problematic Internet Use Questionnaire–9 (PIUQ-9; Laconi et al., 2025), were also used. One clinical study employed a structured diagnostic interview based on proposed DSM criteria for internet use disorder (Pettorruso et al., 2020).

Social media addiction (SMA; 8/30; 26.7%) was assessed using both general and platform-specific measures. General measures included the Bergen Social Media Addiction Scale (BSMAS; Andreassen et al., 2016; Collins & Grant, 2025; Gratz et al., 2023), the Social Media Addiction Scale–Adult Form (SMAS-AF; Elkin et al., 2025), and the Chinese Social Media Addiction Scale (CSMAS; Liu & Ma, 2019). Four studies used Facebook-specific measures, including the Internet Addiction Test–Facebook Version (Chabrol, Laconi, Delfour, & Moreau, 2017), the Problematic Facebook Use Scale (PFUS; Marino et al., 2019), the Bergen Facebook Addiction Scale (BFAS; Rogier, Beomonte Zobel, Tosi, Tambelli, & Velotti, 2023), and a dependence-based measure developed by Hormes, Kearns, and Timko (2014).

Problematic gaming (5/30; 16.7%) was assessed using established instruments, including the Problematic Online Gaming Questionnaire–Short Form (POGQ-SF; Dementrovics et al., 2012; Johnston & Dinc, 2024), the Internet Gaming Disorder Scale–Short Form (IGDS-SF9; Pontes &

Griffiths, 2015; Musetti et al., 2019), the Problematic Video Game Playing Scale (PVP; Tejeiro Salguero & Morán, 2002; Hollett & Harris, 2020), and the full POGQ (Sevintuna et al., 2024). Kim et al. (2023) assessed gaming within a broader behavioral addiction screener, the Brief Screener for Substance and Behavioral Addictions (SSBA; Schluter, Hodgins, Wolfe, & Wild, 2018), which includes a gaming subscale. Problematic smartphone use was assessed in one study using an adult-adapted version of the Adolescent Preoccupation with Screens Scale (Horwood & Anglim, 2021; Hunter et al., 2017).

Measurement of borderline personality traits and findings

BPD-relevant traits were assessed using self-report instruments mapped onto domains and facets of the AMPD (American Psychiatric Association, 2013, 2022). Domain-level study counts and summary findings are presented in Table 3, and detailed facet-level mappings are provided in Appendix 1A. Three studies (Musetti et al., 2019; Schimmenti et al., 2021; Rogier et al., 2023) used the PID-5 or its brief form (PID-5-BF), providing direct assessment of AMPD domains (Krueger et al., 2012).

Negative Affectivity. Negative Affectivity, encompassing heightened emotional reactivity, poor distress tolerance, and fear of abandonment, was the most frequently represented AMPD domain (14/30 studies; 46.7%; see Table 3). All 14 studies assessed the emotional lability facet, most commonly using variants of the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004; see Appendix 1A). The DERS was treated as a proxy for emotional lability, as emotion dysregulation reflects affective instability central to Negative Affectivity (Carpenter & Trull, 2012; Stulcbauer, Chen, Gross, Krueger, & Preece, 2024). Additional measures included the Distress Tolerance Scale (DTS; Simons & Gaher, 2005; Akbari, 2017) and the maladaptive regulation subscale of the Feelings and Me (FAM; Kovacs, Rottenberg, & George, 2009; Gratz et al., 2023).

Across general PIU, SMA, gaming, and smartphone use, greater emotion dysregulation was consistently associated with higher PIU severity or risk (Akbari, 2017; Hormes et al., 2014; Horwood & Anglim, 2021; Marino et al., 2019; Pettorruso et al., 2020; Rogier et al., 2023). These associations were observed across diverse samples and were robust at the bivariate level. In several studies, emotion dysregulation remained a significant predictor in multivariable models after adjusting for depressive and anxiety symptoms, personality traits, and demographic covariates (e.g., Evren et al., 2019; Hollett & Harris, 2020; Horwood & Anglim, 2021; Rogier et al., 2023).

Evidence also supported indirect pathways involving emotion dysregulation. Childhood adversity was linked to problematic gaming and SMA via emotion dysregulation (Elkin et al., 2025; Kim et al., 2023), and childhood trauma partially accounted for associations between dissociation and PIU severity (Evren et al., 2019). Emotion dysregulation also

Table 2. Study characteristics

Study	Country	PIU type	Sample characteristics	Design/ recruitment	PIU measures (α)	BPD trait measures (α)	Contextual measures (α)	Key findings	Quality rating
De Berardis et al. (2009)	Italy	General	$N = 312$ undergraduates (55 % female; M age = 22.9 ± 3.4)	Cross-sectional university survey	IAT (.91)	DES (.94)	BDI (.90) STAI (.89)	Dissociation was positively associated with PIU after controlling for depression and anxiety ($\beta = .21$, $p = .003$)	Fair
Canan et al. (2012)	Turkey	General	$N = 1,034$ university students (40 % female; $M = 20.4 \pm 2.1$)	Cross-sectional university classroom survey	IAS (.92)	DES (.95)	SCL-90-R (.97)	Dissociative experiences were positively correlated with PIU ($r = .39$, $p < .001$)	Fair
Dalbudak et al. (2014)	Turkey	General	$N = 271$ university students (59 % female; M age NR)	Cross-sectional university classroom survey	IAS (.92)	BPI (.89); DES (.95)	CTQ (.81) BAI (.90) BDI (.89)	BPD traits and dissociation were associated with greater PIU ($F = 21.49$, $p < .001$; $F = 20.51$, $p < .001$) but dissociation became non- significant in multivariate models	Good
Hormes et al. (2014)	United States	Social Media (Facebook)	$N = 253$ university students (63 % female; $M = 19.7 \pm 2.9$)	Cross-sectional university survey	Facebook IAT (.93); DSM-IV criteria (.72); CAGE-FB (.68)	DERS-36 (.93)	AUDIT (.84); AAQ-II (.83); WBSI (.94)	Emotion dysregulation was higher among participants meeting criteria for Facebook addiction ($\eta^2 = .06$, $p < .001$)	Good
Wu, Ko, and Lane (2016)	Taiwan	General	$N = 556$ university students (61 % female; M age NR)	Two-phase cross- sectional study including diagnostic assessment of PDs	CIAS (.93)	BPDFS (.70); CMSADS-L	–	BPD diagnosis was more frequent in the PIU group ($n = 9$, 12.3%; $\chi^2 = 15.50$, $p < 0.001$). Females with PIU met criteria for BPD at significantly higher rates than males with PIU ($n = 7$, 21.9%; $\chi^2 = 25.65$, $p < 0.001$)	Good

(continued)

Table 2. Continued

Study	Country	PIU type	Sample characteristics	Design/ recruitment	PIU measures (α)	BPD trait measures (α)	Contextual measures (α)	Key findings	Quality rating
Wu, Ko, Tung, and Li (2016)	Taiwan	General	$N = 1,826$ (T1) $\rightarrow$ 623 (T2; 62 % female; $M = 20$ ± 1.8)	One-year longitudinal study; stratified cluster sampling of college students	CIAS (.93)	BPDFS (.70)	IUETRD ($\alpha = .88$)	Greater BP traits at T1 predicted PIU one year later, fully mediated through tension-reduction expectancies ($\beta = .21$, $p < .001$; $R^2 = .43$)	Fair
Zadra et al. (2016)	Germany	General	$N = 168$ adults (51 % male; $M = 32.9 \pm$ 12.4)	Cross-sectional PAGE subsample meeting criteria for PIU (CIUS ≥ 21).	CIUS (.88–.90); CIDI DSM-5 Interview	SCID-II-PD; BIS- 11 (.83)	RSES (.81–.87); CAARS (.74–.95)	BPD was the only PD significantly over- represented in PIU ($p < .01$); Cluster B/C PDs predicted PIU independent of impulsivity and self-esteem	Good
Akbari (2017)	Iran	General	$N = 413$ undergraduates (49 % female; $M = 20.1 \pm 1.8$)	Cross-sectional university survey	IAT (NR)	DERS-36 (NR); DTS (NR)	MCQ-30 (NR)	Emotion dysregulation and low distress tolerance predicted PIU ($R^2 = .62$)	Fair
Chabrol et al. (2017)	France	Social Media (Facebook)	$N = 456$ Facebook users (76 % female; $M = 20.5 \pm 2.5$)	Cross-sectional online survey (recruited via Facebook, email, forums)	Facebook IAT (.86)	PDQ 4+ BP subscale (.84); BSSS (.76); IPPA- 24 (.80–.82)	PBI (.83–.92); CES-D-10 (.75); SAS-A (.70–.89)	BP traits predicted PFU for females only ($\beta = .15$, $p = .02$) and mediated the relationship between overprotection and PFU ($\beta = .25$, $p < .001$)	Fair
Lu et al. (2017)	Taiwan	General	$N = 500$ university students (52 % female; $M = 22.1 \pm 1.8$)	Cross-sectional university survey	CIAS (.93)	BSL-23 (.93)	SCL-90-R (.76–.89)	BP symptom severity predicted PIU directly ($\beta = .20$, $p < .01$) and indirectly via mental health symptoms ($\beta = .16$, $p < .05$)	Good

(continued)

Table 2. Continued

Study	Country	PIU type	Sample characteristics	Design/ recruitment	PIU measures (α)	BPD trait measures (α)	Contextual measures (α)	Key findings	Quality rating
Musetti et al. (2018)	Italy	General	$N = 261$ adults (66 % female; $M = 31.9 \pm 13.9$)	Cross-sectional community survey	IAT (NR)	DES-II (NR); RQ (NR)	SCL-90-R (NR)	Dissociation predicted PIU ($\beta = .24$, $p < .001$) after adjusting for attachment and symptoms. Attachment styles were nonsignificant predictors	Fair
Marino et al. (2019)	Italy	Social Media (Facebook)	$N = 750$ adults (71.9% female; $M = 23.4 \pm 5.7$)	Cross-sectional Facebook survey; recruitment via Facebook ads	PFUS (.86); PACS- FB (.83)	DERS-36 (.93)	DTQ (.84–.88)	Emotion dysregulation and desire thinking predicted PFU; desire thinking had indirect effects via Facebook craving ($\beta = .33$, $p < .01$; $R^2 = .18$)	Good
Chen et al. (2019)	Taiwan	General	$N = 500$ baseline; 324 follow-up (52.4% female; $M = 22.1 \pm 1.8$)	One-year prospective cohort study	CIAS (.93)	BSL-23 (.93); SCIM (70–.76);	BDI-II (.88); KSADS – Suicidality	Baseline BP symptoms ($\beta = .31$, $p < .001$) and identity disturbance ($\beta = .27$, $p < .001$) predicted PIU 1 year later after controlling for depression and suicidality	Good
Musetti et al. (2019)	Italy	Gaming	$N = 366$ gamers (15% female; $M = 21.6 \pm 3.8$)	Cross-sectional survey; recruitment via gaming forums	IGDS9-SF (.89)	PID-5-BF (.81)	TAS-20 (.79); DSM-5 L1 PF (.64)	Disordered-gaming cluster showed elevated Negative Affectivity, Disinhibition, Psychoticism, and lower PF ($\eta^2 = .18$)	Good
Evren et al. (2019)	Turkey	General	$N = 920$ students (68.4% female; $M = 21.6 \pm 2.21$)	Cross-sectional university survey	IAT (.92)	DERS-36 (.93); DES (.95)	CTQ (.81)	Emotion dysregulation ($\beta = .25$, $p < .001$) and dissociation ($\beta = .28$, $p < .001$) predicted PIU	Fair

(continued)

Table 2. Continued

Study	Country	PIU type	Sample characteristics	Design/ recruitment	PIU measures (α)	BPD trait measures (α)	Contextual measures (α)	Key findings	Quality rating
Liu and Ma (2019)	China	Social Media	$N = 463$ students (74.3% female; $M = 19.9 \pm 1.1$)	Cross-sectional university survey	CSMAS (.94)	DERS-16 (.93); ECR-SV (.75-.84)	–	severity; childhood trauma partially mediated the association Attachment anxiety predicted SMA through emotion dysregulation (indirect $b = 0.58$, 95 % CI [0.37, 0.82]); avoidance was nonsignificant	Fair
Hollett and Harris (2020)	Canada	Gaming	$N = 928$ gamers (38.2% female; $M = 25.6 \pm 6.5$)	Cross-sectional online survey; recruited via online ads	PVP (.71)	DERS-36 (.81-.92)	–	Impulse-control difficulties ($\beta = .19$, $p < .001$) and reduced emotion regulation strategies ($\beta = .16$, $p < .01$) were unique predictors of problematic gaming severity ($\Delta R^2 = .15$)	Good
Pettruso et al. (2020)	United States	General	$N = 428$ young adults (61% female; $M = 22.3 \pm 3.6$)	Cross-sectional university and community survey	IADQ (NR; PIU cutoff ≥ 5)	DERS-36 (NR); BIS-11 (NR)	TPQ (NR); HAM-D (NR); HAM-A (NR)	Emotion dysregulation differed significantly across PIU risk groups ($\chi^2 = 39.2$, $p < .0001$). Impulsivity also differed by group ($\chi^2 = 24.3$, $p < .0001$), with higher attentional and motor impulsivity in PIU and high-risk groups	Fair
Horwood and Anglim (2021)	Australia	Smartphone	$N = 692$ students (81 % female; $M = 25.2 \pm 7.5$)	Cross-sectional university survey	APSS (.92)	DERS-36 (.95)	IPIP-NEO (.84-.91)	Neuroticism ($\beta = .34$, $p < .001$) and emotion dysregulation ($\beta = .14$, $p < .01$) predicted increased	Fair

(continued)

Table 2. Continued

Study	Country	PIU type	Sample characteristics	Design/ recruitment	PIU measures (α)	BPD trait measures (α)	Contextual measures (α)	Key findings	Quality rating
Schimmenti et al. (2021)	Italy	General	$N = 253$ students (52.3% female; $M = 21 \pm 2.6$)	Cross-sectional university survey	IAT (.93)	PID-5-BF (.89); DES-II (.95); RQ (NR)	–	smartphone use, while conscientiousness ($\beta = -.16, p < .001$) predicted decreased use (adj. $R^2 = .26$). PIU was predicted by negative affectivity ($\beta = .17, p < .01$), avoidant attachment ($\beta = .13, p < .05$), and dissociation ($\beta = .21, p < .05$; $R^2 = .41$). Psychoticism was the strongest predictor of PIU ($\beta = .28, p < .001$).	Good
Love et al. (2022)	United States	Social Media & General	$N = 257$ female students ($M = 20. \pm 1.0$)	Three-wave longitudinal study across one university semester	IAT (.93); RSMM (.73)	DERS-18 (.88)	Overparenting Scale (.73–.82)	Emotion dysregulation associated with risqué SM behavior ($\beta = .21, p < .01$) and PIU ($\beta = .49, p < .01$). Emotion dysregulation fully mediated the relationship between overparenting and other outcomes.	Good
Rogier et al. (2023)	Italy	Social Media (Facebook)	$N = 270$ community adults (78.5 % female; $M = 41. \pm 14.1$)	Cross-sectional survey; adults recruited via snowball sampling	BFAS (.80)	PID-5 (.86–.94); DERS-36 (.89); IPI-47 (.93)	–	Negative affectivity ($b = 3.71, p < .001$), emotion dysregulation ($b = 0.03, p < .01$), and interpersonal aggression ($b = 1.01, p < .01$) predicted PFU ($R^2 = .61$).	Good

(continued)

Table 2. Continued

Study	Country	PIU type	Sample characteristics	Design/ recruitment	PIU measures (α)	BPD trait measures (α)	Contextual measures (α)	Key findings	Quality rating
Kim et al. (2023)	Canada	Gaming	$N = 1,679$ adults (1,262 students [70.4% female; $M = 19.9 \pm 4.3$]; 417 community adults [52.4% female; $M = 29.1 \pm 9.2$])	Cross-sectional survey; two samples (university students and community adults recruited via Prolific)	SSBA (.87–.88)	DERS-18 (.89)	ACE (.73–.74)	ACEs were linked to problematic gaming via emotion dysregulation (indirect $\beta = .07$ –.15, $p < .01$); DERS - Impulse facet was the strongest mediator	Good
Gratz et al. (2023)	United States	Social Media	$N = 377$ adults (51.7 % women; $M = 41.3 \pm 12.0$)	Two-wave prospective survey; adults recruited from MTurk (1- month interval, Mar–May 2020)	BSMAS (.88)	MSI-BPD (.83); FAM maladaptive (≥ 0.91)	DUQ (.67–.71); INQ (.92–.93); SHAI (.93)	Baseline BP symptoms and emotion dysregulation each correlated with SMA ($r^2 = .60$ and .32, $p < .01$). BP symptoms predicted greater SUD ($b = 0.36$, $p < .001$) and thwarted belongingness ($b = 0.78$, $p < .001$) only at high SMA	Good
Sevintuna et al. (2024)	United States	Gaming	$N = 407$ students (65.8 % female; $M = 20.1 \pm 3.2$)	Cross-sectional online university survey; preregistered	POGQ (.93)	MBPD (.78); SCID-II-PQ BPD (.81)	DASS-21 (.82– .91); AUDIT (.80); DUDIT (.86); SCID-II-PQ ASPD (.72)	BP traits correlated with IGD ($r = .26$, $p < .01$) but were not significant predictors after controlling for depression, anxiety, stress, ASPD, and SUD ($\Delta R^2 = .000$ – .007, ns). Depression was the only significant predictor ($\beta = .68$ –.75, $p < .01$)	Good

(continued)

Table 2. Continued

Study	Country	PIU type	Sample characteristics	Design/ recruitment	PIU measures (α)	BPD trait measures (α)	Contextual measures (α)	Key findings	Quality rating
Johnston and Dinc (2024)	United Kingdom	Gaming	$N = 156$ adults (55.1% male; $M = 26. \pm 6.8$)	Cross-sectional online survey; recruitment via university pool and gaming forums	POGQ-SF (.88)	DERS-18 (.88); SUPPS-P (.70)	BART (NR)	DERS-Impulse ($\beta = 0.39, p < .001$) predicted problematic gaming. Positive ($\beta = 0.27, p = .006$) and negative urgency ($\beta = 0.20, p < .001$) were significant predictors, each partially mediated by emotion dysregulation (indirect $\beta = 0.06$ – 0.11 , 95 % CI [0.01, 0.22])	Fair
Kavaklı et al. (2024)	Turkey	General	$N = 325$ students (78.8% female; $M = 21.2 \pm 3.1$)	Cross-sectional university online survey (Jan-Feb 2022)	IAT-SF (.87)	DERS-16 (.92)	OHS (.77); BPAQ (.91)	Emotion dysregulation mediated associations between PIU and both aggression and happiness, explaining 38.6 % of the PIU $\rightarrow$ aggression association (indirect $\beta = .07, p = .039$) and fully mediating the link with happiness (indirect $\beta = -.20, p < .001$)	Fair
Laconi et al. (2025)	International (14 countries)	General	$N = 7,726$ adults (69% female; $M = 25.6 \pm 9.8$)	Cross-sectional multilingual online survey; adults recruited via snowball sampling in 14 countries	PIUQ-9 (.87)	PDQ 4+ (.89–.94)	DSQ-28 (.81); COPE (.85); RSES (.81)	BP traits correlated with PIU at the bivariate level ($r = .09$ – $.42, p < .01$), but were not significant predictors in multivariate models	Fair

(continued)

Table 2. Continued

Study	Country	PIU type	Sample characteristics	Design/recruitment	PIU measures (α)	BPD trait measures (α)	Contextual measures (α)	Key findings	Quality rating
Elkin et al. (2025)	Turkey	Social Media	$N = 318$ students (87.3% female; $M = 21.2 \pm 1.4$)	Cross-sectional online university survey; recruited students using SM ≥ 2 h/day	SMAS-AF (.85)	DERS-36 (.92)	CTQ (.82)	Childhood trauma predicted SMA ($\beta = .48, p < .001$). Emotion dysregulation ($\beta = .30, p < .001$) partially mediated this relationship (CFI = .972, RMSEA = .03)	Fair
Collins and Grant (2025)	United States	Social Media	$N = 289$ adults (52.7% female; $M = 37.4 \pm 12.6$)	Cross-sectional online survey; recruitment via Prolific (Jan 2024)	BSMAS (.87)	MSI-BPD (.84)	–	Subjects screening positive for BPD had higher rates of SMA ($t(274) = -4.48, p < .001$), and after controlling for age and depression. SMA was associated with use of SM for distraction, self-confidence issues, and reassurance seeking ($p < .01$)	Good

Note: All α values represent Cronbach's alpha coefficients reported in the original studies. NR = not reported. All relationships are cross-sectional unless otherwise specified. PIU = problematic internet use; SMA = social media addiction; PIUQ = Problematic Internet Use Questionnaire; IAT = Internet Addiction Test; IAS = Internet Addiction Scale; CIUS = Compulsive Internet Use Scale; CIAS = Chen Internet Addiction Scale; IADQ = Internet Addiction Diagnostic Questionnaire; IGDS9-SF = Internet Gaming Disorder Scale–Short Form; POGQ = Problematic Online Gaming Questionnaire; PFUS = Problematic Facebook Use Scale; BFAS = Bergen Facebook Addiction Scale; BSMAS = Bergen Social Media Addiction Scale; SMAS-AF = Social Media Addiction Scale–Adult Form; SSBA = Brief Screener for Substance and Behavioral Addictions; APSS = Adolescent Problematic Smartphone Scale; DERS-36/18/16 = Difficulties in Emotion Regulation Scale (36-, 18-, or 16-item versions); DES/DES-II = Dissociative Experiences Scale; BPI = Borderline Personality Inventory; BSL-23 = Borderline Symptom List–23; MSI-BPD = McLean Screening Instrument for Borderline Personality Disorder; MBPD = McLean Borderline Personality Disorder Scale; BPDFS = Borderline Personality Disorder Features Scale; PDQ-4+ = Personality Diagnostic Questionnaire–4+; PID-5 = Personality Inventory for DSM-5; SUPPS-P = Short UPPS-P Impulsivity Scale; BIS-11 = Barratt Impulsiveness Scale; CTQ = Childhood Trauma Questionnaire; PBI = Parental Bonding Instrument; IPPA = Inventory of Parent and Peer Attachment; DASS-21 = Depression Anxiety Stress Scales–21; AUDIT = Alcohol Use Disorders Identification Test; DUDIT = Drug Use Disorders Identification Test; BPAQ = Buss–Perry Aggression Questionnaire; OHS = Oxford Happiness Scale; FAM = Functions of Maladaptive Behaviors Scale; INQ = Interpersonal Needs Questionnaire.

Table 3. AMPD domain-level synthesis of borderline-relevant traits associated with problematic internet use

Domain	Studies (n)	Overall association	Summary of findings
Negative Affectivity	14	Strong positive	Negative Affectivity showed consistent positive associations with PIU across outcomes, though evidence for effects independent of depression and anxiety was limited by lack of direct testing
Disinhibition	9	Positive	Disinhibition demonstrated reliable but less consistent associations with PIU, with urgency-related impulsivity showing the strongest effects
Psychoticism	7	Positive	Dissociation and psychoticism-related traits showed small-to-moderate associations with PIU, though effects were variable and influenced by measurement limitations
Detachment	3	Weak positive	Detachment was infrequently assessed and showed weak, inconsistent associations with PIU
Criterion A (Self/Interpersonal Functioning)	6	Positive	Identity and interpersonal functioning impairments were modestly associated with PIU, with identity disturbance showing prospective effects and interpersonal difficulties often operating indirectly through emotional lability
Global BPD Composites	11	Positive	Global borderline personality composites were associated with PIU, but associations were largely accounted for by specific AMPD-aligned traits, particularly emotional lability

Note. Studies may contribute to multiple domains when multiple measures were administered. Counts reflect domain-level inclusion based on direct measure-domain mappings in [Appendix A1](#).

mediated associations between attachment anxiety and SMA (Liu & Ma, 2019), as well as between overparenting and PIU-related behaviors in a longitudinal study (Love, May, Shafer, Fincham, & Cui, 2022). In a gaming sample, urgency-related impulsivity showed indirect associations with problematic gaming severity through emotion dysregulation (Johnston & Dinc, 2024).

Only one study (Pettorruso et al., 2020) included both emotion dysregulation and mood-related covariates; however, incremental effects beyond depression and anxiety were not examined. Overall, evidence for Negative Affectivity—particularly emotional lability—was consistent across study designs and analytic approaches.

Disinhibition. Disinhibition, reflecting impulsivity and risk-taking, was examined in 9 of the 30 included studies (30%; see [Table 3](#)), making it less frequently represented than Negative Affectivity but more commonly assessed than the remaining AMPD domains. Across studies, Disinhibition was primarily operationalized through measures of impulsivity and risk-taking (see [Appendix 1A](#)).

Most commonly, the impulsivity facet was indexed using the DERS Impulse subscale, which assesses impulse control difficulties under emotional arousal and maps onto the impulsivity facet of Disinhibition rather than Negative Affectivity (Akbari, 2017; Evren et al., 2019; Hollett & Harris, 2020; Hormes et al., 2014; Horwood & Anglim, 2021; Johnston & Dinc, 2024; Kim et al., 2023; Pettorruso et al., 2020; Sevintuna et al., 2024). Additional measures included the Barratt Impulsiveness Scale (BIS-11; Patton, Stanford, & Barratt, 1995), which assesses attentional, motor, and non-planning impulsivity (Pettorruso et al., 2020; Zadra et al., 2016); the Short UPPS-P Impulsive Behavior Scale (SUPPS-

P; Cyders, Littlefield, Coffey, & Karyadi, 2014; Johnston & Dinc, 2024); and the Brief Sensation Seeking Scale (BSSS-8; Stephenson, Velez, Chalela, Ramirez, & Hoyle, 2007), used to assess risk-taking tendencies (Chabrol et al., 2017).

Across studies, Disinhibition showed generally positive associations with PIU, although effects were less consistent than those observed for Negative Affectivity. Evidence was strongest in gaming samples, where urgency and impulse control difficulties emerged as significant predictors of problematic gaming severity (Hollett & Harris, 2020; Johnston & Dinc, 2024). In a cluster analysis, Musetti et al. (2019) found that individuals with disordered gaming patterns exhibited elevated Disinhibition relative to non-problematic gamers. In general PIU contexts, impulsivity differentiated PIU risk groups, with higher attentional and motor impulsivity observed among individuals at elevated risk (Pettorruso et al., 2020).

Risk taking was assessed in only one study (Chabrol et al., 2017), which found no significant associations with problematic Facebook use at either the bivariate or multivariable level. Overall, findings for Disinhibition were less consistent than for Negative Affectivity and appeared strongest in gaming samples.

Psychoticism. Psychoticism was examined in 7 of the 30 studies (23.3%; see [Table 3](#)). This domain was most commonly operationalized through dissociative experiences, assessed using the Dissociative Experiences Scale (DES/DES-II; Bernstein & Putnam, 1986; De Berardis et al., 2009; Canan et al., 2012; Dalbudak et al., 2014; Musetti, Terrone, & Schimmenti, 2018; Evren et al., 2019; Schimmenti et al., 2021).

Across both university and community samples, dissociation was positively associated with PIU severity

(Canan et al., 2012; Evren et al., 2019; Musetti et al., 2018). De Berardis et al. (2009) reported that dissociation remained significantly associated with PIU after controlling for depressive and anxiety symptoms. However, in Dalbudak et al. (2014), dissociative experiences were associated with PIU at the bivariate level but were not retained after adjustment for co-occurring BPD traits, anxiety, depression, and childhood trauma.

Findings for Psychoticism were similarly mixed in studies using direct AMPD measures. Musetti et al. (2019) found elevated Psychoticism among individuals with more severe problematic gaming profiles. Schimmenti et al. (2021) reported that Psychoticism predicted PIU prior to the inclusion of dissociative symptoms. In contrast, Rogier et al. (2023) found that Psychoticism was not retained as a significant predictor after adjusting for other personality domains, emotion dysregulation, interpersonal problems, and demographic covariates.

Detachment. Detachment, reflecting interpersonal withdrawal and emotional disengagement, was examined in 3 of the 30 studies (10.0%; see Table 3), all using PID-5 measures. Across studies, Detachment demonstrated weak and inconsistent associations with PIU. When included in multivariable models alongside other AMPD trait domains, Detachment did not emerge as a significant predictor of PIU (Schimmenti et al., 2021; Rogier et al., 2023). In a gaming sample, Detachment did not clearly distinguish individuals in disordered gaming clusters from non-problematic gamers (Musetti et al., 2019).

Criterion A: self and interpersonal functioning. Impairments in self and interpersonal functioning (Criterion A) were examined in 6 of the 30 studies (20.0%; see Table 3). Criterion A was operationalized using measures of identity and interpersonal functioning. Adult attachment measures were used as indicators of interpersonal functioning due to their focus on patterns of intimacy, trust, and relatedness in close relationships (see Appendix 1A).

Identity functioning was assessed using the Self-Concept and Identity Measure (SCIM; Kaufman, Cundiff, & Crowell, 2015; Chen et al., 2019). Interpersonal functioning was assessed using attachment-based and interpersonal problem measures, including the Inventory of Parent and Peer Attachment–24 (IPPA-24; Armsden & Greenberg, 1987; Chabrol et al., 2017), the Experiences in Close Relationships Scale–Short Version (ECR-SV; Wei, Russell, Mallinckrodt, & Vogel, 2007; Liu & Ma, 2019), the Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991; Musetti et al., 2018; Schimmenti et al., 2021), and the Interpersonal Problem Index–47 (IPI-47; Pilkonis et al., 1995; Rogier et al., 2023).

Findings for interpersonal functioning were mixed. Attachment styles were not associated with PIU after accounting for dissociation and general symptom burden in Musetti et al. (2018); however, avoidant attachment remained a significant predictor when modeled alongside AMPD domains in Schimmenti et al. (2021). In Liu and Ma

(2019), attachment anxiety showed an indirect association with SMA via emotion dysregulation, whereas attachment avoidance was not significant. Broader interpersonal difficulties were associated with problematic Facebook use in a community adult sample (Rogier et al., 2023). Although assessed in only one study, identity disturbance significantly predicted PIU at one-year follow-up after controlling for depression and suicidality (Chen et al., 2019).

Global borderline personality measures

Global measures of BPD severity were used in 11 of the 30 studies (36.7%; see Table 3), including self-report symptom scales, screening instruments, and diagnostic interviews. Measures included the BPD Features Scale (BPDFS; Ko, Lu, Shen, & Shyu, 1997; Wu et al., 2016a, 2016b), the Borderline Symptom List–23 (BSL-23; Bohus et al., 2001; Lu et al., 2017; Chen et al., 2019), the Personality Diagnostic Questionnaire–4+ BPD subscale (PDQ-4+ BPD; Hyler, 2012; Chabrol et al., 2017; Laconi et al., 2025), the Minnesota BPD Scale (MBPD; Bornovalova, Hicks, Patrick, Iacono, & McGue, 2011; Sevintuna et al., 2024), the SCID-II Personality Disorder Questionnaire–BPD subscale (SCID-II-PQ; Ekselius, Lindström, Von Knorring, Bodlund, & Kullgren, 1994; Sevintuna et al., 2024), the McLean Screening Instrument for BPD (MSI-BPD; Zanarini et al., 2003; Gratz et al., 2023; Collins & Grant, 2025), and structured diagnostic interviews including the SCID-II and CIDI (Wu et al., 2016a; Zadra et al., 2016).

In cross-sectional studies, higher BPD symptom severity and positive BPD diagnosis was associated with greater PIU severity. Wu et al. (2016a) found that BPD diagnoses were significantly more prevalent among individuals meeting criteria for PIU compared to controls. In a survey study, BPD symptom severity was associated with problematic Facebook use in females but not males (Chabrol et al., 2017) and predicted PIU severity in a university sample (Lu et al., 2017).

Longitudinal findings supported these associations. In one study, baseline BPD traits predicted PIU at follow-up indirectly through tension-reduction expectancies (Wu et al., 2016b). In another, baseline BPD symptom severity predicted PIU one year later after controlling for depressive symptoms and suicidality (Chen et al., 2019).

Findings from multivariable models were inconsistent. In a large international survey, Laconi et al. (2025) found that global BPD pathology was associated with PIU at the bivariate level, but not after adjustment for other personality traits, coping strategies, defense mechanisms, and self-esteem. Similarly, Sevintuna et al. (2024) found that BPD traits did not independently predict problematic gaming after accounting for depressive symptoms and related covariates, whereas depression remained significant. In contrast, Collins and Grant (2025) found that positive screening for BPD remained significantly associated with SMA after adjusting for age and depression, and Zadra et al. (2016) reported that BPD traits were uniquely over-represented among individuals with PIU.

Quality assessment

Methodological quality ranged from Fair to Good (see Table 2). Sixteen studies (53.3%) were rated Good, typically due to clearer reporting of participation rates, inclusion of covariate adjustment. Fourteen studies (46.7%) were rated Fair, typically due to utilizing convenience or crowdsourced recruitment methods, low or unreported participation rates, absence of power analyses, and limited adjustment for confounders. Attrition was notable in longitudinal studies, exceeding 30% at follow-up in both Chen et al. (2019) and Wu et al. (2016b).

Despite these limitations, validated instruments were used in nearly all studies, and findings from higher-quality studies generally replicated the overall pattern. Notably, higher-quality studies more often retained significant associations for emotional lability and impulsivity after adjustment, supporting their robustness as correlates of PIU.

DISCUSSION

Overview of findings

The present review examined associations between BPD-relevant personality features and problematic internet use (PIU) within a dimensional framework. Across studies, findings did not support a broad or uniform relationship between PIU and BPD at the construct level. Instead, associations were more consistently observed at the level of specific lower-order processes—particularly emotional lability and affect-driven impulsivity—whereas evidence for other trait domains, dissociation, and global BPD composites was more variable and often attenuated in multivariable models.

This pattern is consistent with etiological frameworks of PIU that emphasize dysregulated engagement under conditions of distress, including the Compensatory Internet Use model (Kardefelt-Winther, 2014) and the I-PACE model (Brand et al., 2016, 2019), as well as transdiagnostic models of psychopathology that conceptualize symptoms as arising from shared liability processes rather than discrete disorders (Kotov et al., 2021; Watts et al., 2023).

More specifically, findings were most consistent with the possibility that shared transdiagnostic vulnerabilities—particularly emotion dysregulation and inhibitory control difficulties—underlie associations between PIU and BPD-relevant traits (Aldao et al., 2010; Beauchaine et al., 2017; Kotov et al., 2021). There was also support for a vulnerability-based account in which affective instability and urgency increase susceptibility to PIU under conditions of distress (Brand et al., 2016, 2019; Kardefelt-Winther, 2014). By contrast, there was comparatively little evidence for the possibility that PIU itself elicits borderline-like behavior in the absence of underlying vulnerabilities, although features of online environments (e.g., anonymity, reduced social cues) may amplify disinhibited or reactive responding in some contexts (Cho & Kwon, 2015; Suler, 2004; Vogel et al., 2014).

Criterion B: pathological personality traits

At the level of Criterion B traits, PIU was most consistently associated with Negative Affectivity, particularly emotional dysregulation. Across studies, individuals with greater difficulty modulating distress were more likely to report problematic engagement across multiple types of internet use (Hormes et al., 2014; Horwood & Anglim, 2021; Marino et al., 2019; Pettorruso et al., 2020; Rogier et al., 2023). This pattern aligns with a large literature identifying emotion dysregulation as a transdiagnostic vulnerability across internalizing and addictive disorders (Aldao et al., 2010; Sloan et al., 2017), as well as with behavioral addiction models emphasizing negative reinforcement and affect-driven engagement (Brand et al., 2016, 2019; Kardefelt-Winther, 2014).

Disinhibition was also associated with PIU, consistent with previous work emphasizing impaired self-control in PIU (Li et al., 2021). Associations were most evident when impulsivity was operationalized as urgency—i.e., impulsive responding under emotional distress (DERS-Impulse; Gratz & Roemer, 2004)—rather than as generalized sensation seeking (Chabrol et al., 2017; Cyders et al., 2014). This distinction is consistent with broader behavioral addictions research (López-Guerrero, Navas, Perales, Rivero, & Muela, 2023), and may suggest that affect-linked disinhibition, and possibly craving by extension (Giuliani & Berkman, 2015), may be more proximally relevant to PIU than trait-level impulsivity more broadly. Within digital environments, characterized by rapid reinforcement and minimal barriers to disengagement, urgency may facilitate repeated engagement as a form of short-term affect regulation (Brand et al., 2019; Cyders & Smith, 2008; Dong & Potenza, 2014).

In contrast to Negative Affectivity and Disinhibition, evidence for other trait domains was limited or inconsistent. Taken together, these findings suggest that associations between PIU and BPD traits may be better understood in terms of specific affective and regulatory processes (i.e., emotion regulation, distress tolerance, urgency) rather than specific personality pathology.

Findings related to dissociation were more variable, with several studies reporting bivariate associations between dissociative experiences and PIU (Canan et al., 2012; Evren et al., 2019; Musetti et al., 2018). However, these effects were often attenuated when controlling for co-occurring psychopathology and/or other personality variables (Dalbudak et al., 2014; Schimmenti et al., 2021; Rogier et al., 2023), suggesting that trait-dissociation may not function as an independent vulnerability factor to PIU. This finding is particularly interesting in light of recent work on the concept of online dissociation—dissociative experiences specific to online activities (Boysan, Eşkisu, & Çam, 2019)—which, in a recent mixture modeling study by Eşkisu, Boysan, and Çam (2024), was found to be a substantial predictor of PIU, when trait-level dissociation was not.

In this context, dissociation may function less as a broad vulnerability factor, and more as a state-dependent factor that sustains engagement once internet use is initiated (Eşkisu et al., 2024).

Criterion A and personality functioning

Evidence for Criterion A impairments was limited and inconsistent. Interpersonal functioning—typically operationalized via attachment—showed mixed associations with PIU, with some evidence for links with avoidant attachment (Liu & Ma, 2019; Musetti et al., 2018; Schimmenti et al., 2021; Rogier et al., 2023). Identity disturbance was assessed in only one study, which suggested that identity diffusion may function as a vulnerability factor for PIU (Chen et al., 2019).

Given the limited and uneven evidence, it remains unclear how impairments in personality functioning relate to PIU. One possibility is that these features are more relevant to the maintenance or subjective meaning of PIU rather than its initial development, consistent with models emphasizing identity disturbance as a core feature of personality pathology (American Psychiatric Association, 2013, 2022; Morey, 2017) and research on online identity exploration and compensatory self-presentation (Casale & Fioravanti, 2018; Vogel et al., 2014). However, this interpretation is tentative and requires more direct investigation using validated measures of Criterion A functioning.

Sources of heterogeneity

Findings should be interpreted in the context of substantial methodological and conceptual heterogeneity. Most studies assessed isolated traits in non-clinical samples rather than comprehensive personality profiles, limiting conclusions about BPD as a diagnostic construct. Importantly, most studies were not designed to assess AMPD trait domains directly; instead, they measured related constructs (e.g., emotion dysregulation, impulsivity, attachment) using frameworks external to the AMPD, requiring retrospective mapping to facilitate synthesis.

This was particularly evident for Negative Affectivity. Although emotional lability is conceptualized as a trait-level facet, many studies operationalized this domain using process-level measures (e.g., emotion dysregulation), which reflect related but non-identical levels of analysis (Gratz & Roemer, 2004), which likely contributed to inconsistencies across findings. More broadly, studies varied in whether they assessed lower-order processes, broader trait dimensions, or composite constructs, limiting comparisons across studies. Heterogeneity was also evident in the operationalization of PIU, which spanned multiple behavioral domains (e.g., generalized use, social media, gaming) and measurement approaches, a well-documented issue in PIU research (Fineberg et al., 2022; Kuss & Lopez-Fernandez, 2016).

Finally, results were sensitive to statistical models employed. In studies including broader psychopathology or personality variables, associations were often attenuated or mediated, suggesting that observed relationships could be related to shared variance among personality traits, comorbid psychopathology, or higher-order factors (Kotov et al., 2021).

Implications

The present findings support a dimensional, process-based conceptualization of PIU, in which problematic engagement reflects the interaction of affective and regulatory vulnerabilities rather than a discrete syndrome (Brand et al., 2019; Tiego et al., 2019). However, this interpretation should be considered in the context of variability in measurement and study design.

The present findings are broadly consistent with the spirit of dimensional models of psychopathology, which emphasize shared liability processes and lower-order mechanisms over categorical diagnoses (Kotov et al., 2021). Within this framework, behavioral addictions have previously been incorporated within externalizing domains (Mullins-Sweatt et al., 2022), but their conceptualization remains relatively limited. Dimensional models of substance use disorders have emphasized substantial within-disorder heterogeneity and the importance of “deep phenotyping” to identify distinct configurations of underlying processes (Litten et al., 2015; Watts et al., 2023). Applying a similar framework to PIU may help clarify its heterogeneity and improve conceptual precision.

Clinically, these findings suggest that some individuals with PIU may benefit from interventions that target processes maintaining problematic engagement, particularly emotion dysregulation and affect-driven impulsivity. Approaches that directly target these mechanisms, such as dialectical behavior therapy, may represent a promising intervention framework, although direct evidence for its efficacy in PIU remains limited (Aldao et al., 2010; Beauchaine et al., 2017; Linehan, 1993).

Limitations

Several limitations should be noted. First, this review was not preregistered, which introduces the potential for selective reporting bias. Second, data extraction and quality assessment were conducted by a single reviewer, and mapping diverse measures onto AMPD domains required subjective judgment guided by the literature. Although this approach enabled structured synthesis, it introduces some conceptual imprecision, as many measures assess related but non-identical constructs. Third, the review was limited to English-language studies and adult samples, which may limit generalizability. Finally, heterogeneity in study design, measurement, and analytic approaches limited direct comparability across studies and precluded causal inference.

CONCLUSIONS

Associations between PIU and BPD-relevant features are best understood at the level of specific dimensional processes—particularly emotion dysregulation and affect-driven impulsivity—rather than reflecting BPD as a unitary construct, consistent with the I-PACE model (Brand et al., 2016, 2019). Importantly, these findings do not support conceptualizing PIU as an expression of BPD itself—instead,

the observed overlap appears to reflect shared vulnerability processes that cut across diagnostic boundaries.

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REFERENCES

- Aboujaoude, E. (2010). Problematic internet use: An overview. *World Psychiatry*, 9(2), 85–90. <https://doi.org/10.1002/j.2051-5545.2010.tb00278.x>
- Akbari, M. (2017). Metacognitions or distress intolerance: The mediating role in the relationship between emotional dysregulation and problematic internet use. *Addictive Behaviors Reports*, 6, 128–133. <https://doi.org/10.1016/j.abrep.2017.10.004>
- Aldao, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review*, 30(2), 217–237. <https://doi.org/10.1016/j.cpr.2009.11.004>
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Association. <https://doi.org/10.1176/appi.books.9780890425596>
- American Psychiatric Association. (2022). *Diagnostic and Statistical Manual of mental disorders (DSM-5-TR)*. American Psychiatric Association Publishing. <https://doi.org/10.1176/appi.books.9780890425787>
- Andreassen, C. S., Billieux, J., Griffiths, M. D., Kuss, D. J., Demetrovics, Z., Mazzoni, E., & Pallesen, S. (2016). The relationship between addictive use of social media and video games and symptoms of psychiatric disorders: A large-scale cross-sectional study. *Psychology of Addictive Behaviors*, 30(2), 252–262. <https://doi.org/10.1037/adb0000160>
- Armsden, G. C., & Greenberg, M. T. (1987). The inventory of parent and peer attachment: Individual differences and their relationship to psychological well-being in adolescence. *Journal of Youth and Adolescence*, 16(5), 427–454. <https://doi.org/10.1007/BF02202939>
- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, 61(2), 226–244. <https://doi.org/10.1037/0022-3514.61.2.226>
- Beauchaine, T. P., Zisner, A. R., & Sauder, C. L. (2017). Trait impulsivity and the externalizing spectrum. *Annual Review of Clinical Psychology*, 13, 343–368. <https://doi.org/10.1146/annurev-clinpsy-021815-093253>
- Bernstein, E. M., & Putnam, F. W. (1986). Development, reliability, and validity of a dissociation scale. *The Journal of Nervous and Mental Disease*, 174(12), 727–735. <https://doi.org/10.1097/00005053-198612000-00004>
- Block, J. J. (2008). Issues for DSM-V: Internet addiction. *American Journal of Psychiatry*, 165(3), 306–307. <https://doi.org/10.1176/appi.ajp.2007.07101556>
- Bohus, M., Limberger, M. F., Frank, U., Sender, I., Gratwohl, T., & Stieglitz, R. D. (2001). Development of the borderline symptom list. *Psychotherapie, Psychosomatik, Medizinische Psychologie*, 51(5), 201–211. <https://doi.org/10.1055/s-2001-13281>
- Bornoalova, M. A., Hicks, B. M., Patrick, C. J., Iacono, W. G., & McGue, M. (2011). Development and validation of the Minnesota borderline personality disorder scale. *Assessment*, 18(2), 234–252. <https://doi.org/10.1177/1073191111398320>
- Boysan, M., Eşkisü, M., & Çam, Z. (2019). Development of a new instrument for assessing dissociation in the net: The Van Online Dissociative Experiences Schedule (VODES). *Neuropsychiatric Investigation*, 57(3), 2–9. <https://doi.org/10.5455/NYS.20190920012130>
- Brand, M., Wegmann, E., Stark, R., Müller, A., Wölfling, K., Robbins, T. W., & Potenza, M. N. (2019). The interaction of person-affect-cognition-execution (I-PACE) model for addictive behaviors: Update, generalization to addictive behaviors beyond internet-use disorders, and specification of the process character of addictive behaviors. *Neuroscience and Biobehavioral Reviews*, 104, 1–10. <https://doi.org/10.1016/j.neubiorev.2019.06.032>
- Brand, M., Young, K. S., Laier, C., Wölfling, K., & Potenza, M. N. (2016). Integrating psychological and neurobiological considerations regarding the development and maintenance of specific internet-use disorders: An interaction of person-affect-cognition-execution (I-PACE) model. *Neuroscience and Biobehavioral Reviews*, 71, 252–266. <https://doi.org/10.1016/j.neubiorev.2016.08.033>
- Canan, F., Ataoglu, A., Ozcetin, A., & Icmeli, C. (2012). The association between internet addiction and dissociation among Turkish college students. *Comprehensive Psychiatry*, 53(5), 422–426. <https://doi.org/10.1016/j.comppsy.2011.08.006>
- Carpenter, R. W., & Trull, T. J. (2012). Components of emotion dysregulation in borderline personality disorder: A review. *Current Psychiatry Reports*, 15(1), 335. <https://doi.org/10.1007/s11920-012-0335-2>
- Casale, S., & Fioravanti, G. (2018). Why narcissists are at risk for developing Facebook addiction: The need to be admired and the need to belong. *Addictive Behaviors*, 76, 312–318. <https://doi.org/10.1016/j.addbeh.2017.08.038>
- Chabrol, H., Laconi, S., Delfour, M., & Moreau, A. (2017). Contributions of psychopathological and interpersonal variables to problematic Facebook use in adolescents and young adults. *International Journal of High Risk Behaviors and Addiction*, 6(1). <https://doi.org/10.5812/ijhrba.32773>
- Chen, T.-H., Hsiao, R. C., Liu, T.-L., & Yen, C.-F. (2019). Predicting effects of borderline personality symptoms and self-concept and identity disturbances on internet addiction, depression, and suicidality in college students: A prospective study.

- The Kaohsiung Journal of Medical Sciences*, 35(8), 508–514. <https://doi.org/10.1002/kjm2.12082>
- Cho, D., & Kwon, K. H. (2015). The impacts of identity verification and disclosure of social cues on flaming in online user comments. *Computers in Human Behavior*, 51, 363–372. <https://doi.org/10.1016/j.chb.2015.04.046>
- Collins, M., & Grant, J. E. (2025). Social media addiction and borderline personality disorder: A survey study. *Frontiers in Psychiatry*, 15, 1459827. <https://doi.org/10.3389/fpsy.2024.1459827>
- Crowell, S. E., Beauchaine, T. P., & Linehan, M. M. (2009). A biosocial developmental model of borderline personality: Elaborating and extending Linehan's theory. *Psychological Bulletin*, 135(3), 495–510. <https://doi.org/10.1037/a0015616>
- Cyders, M. A., Littlefield, A. K., Coffey, S., & Karyadi, K. A. (2014). Examination of a short version of the UPPS-P impulsive behavior scale. *Addictive Behaviors*, 39(9), 1372–1376. <https://doi.org/10.1016/j.addbeh.2014.02.013>
- Cyders, M. A., & Smith, G. T. (2008). Emotion-based dispositions to rash action: Positive and negative urgency. *Psychological Bulletin*, 134(6), 807–828. <https://doi.org/10.1037/a0013341>
- Dalbudak, E., Evren, C., Aldemir, S., & Evren, B. (2014). The severity of internet addiction risk and its relationship with the severity of borderline personality features, childhood traumas, dissociative experiences, depression and anxiety symptoms among Turkish university students. *Psychiatry Research*, 219(3), 577–582. <https://doi.org/10.1016/j.psychres.2014.02.032>
- De Berardis, D., D'Albenzio, A., Gambi, F., Sepede, G., Valchera, A., Conti, C. M., ... Ferro, F. M. (2009). Alexithymia and its relationships with dissociative experiences and internet addiction in a nonclinical sample. *CyberPsychology & Behavior*, 12(1), 67–69. <https://doi.org/10.1089/cpb.2008.0108>
- De Francisco Carvalho, L., Pianowski, G., Bacciotti, J. T., & Reis, A. M. (2018). Assessing borderline personality disorder based on the Hierarchical Taxonomy of Psychopathology (HiTOP): Dimensional clinical personality inventory 2 – BPD. *Archives of Psychiatry and Psychotherapy*, 20(4), 77–87. <https://doi.org/10.12740/APP/99146>
- Demetrovics, Z., Urbán, R., Nagygyörgy, K., Farkas, J., Griffiths, M. D., Pápay, O., ... Oláh, A. (2012). The development of the Problematic Online Gaming Questionnaire (POGQ). *PLoS ONE*, 7(5), e36417. <https://doi.org/10.1371/journal.pone.0036417>
- Dong, G., & Potenza, M. N. (2014). A cognitive-behavioral model of internet gaming disorder: Theoretical underpinnings and clinical implications. *Journal of Psychiatric Research*, 58, 7–11. <https://doi.org/10.1016/j.jpsychires.2014.07.005>
- Durak, M., & Senol-Durak, E. (2014). Which personality traits are associated with cognitions related to problematic internet use? *Asian Journal of Social Psychology*, 17(3), 206–218. <https://doi.org/10.1111/ajsp.12056>
- Ekselius, L., Lindström, E., Von Knorring, L., Bodlund, O., & Kullgren, G. (1994). SCID II interviews and the SCID screen questionnaire as diagnostic tools for personality disorders in DSM-III-R. *Acta Psychiatrica Scandinavica*, 90(2), 120–123. <https://doi.org/10.1111/j.1600-0447.1994.tb01566.x>
- Elkin, N., Mohammed Ashraf, A. K., Kılınçel, O., Kılınçel, Ş., Ranganathan, M., Sakarya, A. K., & Soydan, A. M. (2025). Screens and scars: SEM analysis of the relationship between childhood trauma, emotion regulation, and social media addiction. *Frontiers in Psychology*, 16, 1502968. <https://doi.org/10.3389/fpsyg.2025.1502968>
- Eşkisü, M., Boysan, M., & Çam, Z. (2024). A mixture modeling of the predictors of internet addiction: Cognition and dissociation. *Psychological Reports*, 127(5), 2262–2286. <https://doi.org/10.1177/00332941221149180>
- Evren, C., Evren, B., Dalbudak, E., Topcu, M., Kutlu, N., & Elhai, J. D. (2019). Severity of dissociative experiences and emotion dysregulation mediate the relationship between childhood trauma and internet addiction symptom severity among young adults. *Dusunen Adam - The Journal of Psychiatry and Neurological Sciences*, 32(4), 334–344. <https://doi.org/10.14744/DAJPNS.2019.00048>
- Fergus, T. A., & Russell, L. H. (2016). Does cyberchondria overlap with health anxiety and obsessive-compulsive symptoms? An examination of latent structure and scale interrelations. *Journal of Anxiety Disorders*, 38, 88–94. <https://doi.org/10.1016/j.janxdis.2016.01.009>
- Fernandes, B., Maia, B. R., & Pontes, H. M. (2019). Internet addiction or problematic internet use? Which term should be used? *Psicologia USP*, 30, e190020. <https://doi.org/10.1590/0103-6564E190020>
- Fineberg, N. A., Menchón, J. M., Hall, N., Dell'Osso, B., Brand, M., Potenza, M. N., ... Zohar, J. (2022). Advances in problematic usage of the internet research – A narrative review by experts from the European network for problematic usage of the internet. *Comprehensive Psychiatry*, 118, 152346. <https://doi.org/10.1016/j.comppsy.2022.152346>
- Gioia, F., Rega, V., & Boursier, V. (2021). Problematic internet use and emotional dysregulation among young people: A literature review. *Clinical Neuropsychiatry*, 18(1), 41–54. <https://doi.org/10.36131/cnfioritieditore20210104>
- Giuliani, N. R., & Berkman, E. T. (2015). Craving is an affective state and its regulation can be understood in terms of the extended process model of emotion regulation. *Psychological Inquiry*, 26(1), 48–53. <https://doi.org/10.1080/1047840X.2015.955072>
- Gratz, K. L., Richmond, J. R., Scamaldo, K. M., Edmonds, K. A., Rose, J. P., & Tull, M. T. (2023). Prospective impact of borderline personality disorder symptoms and social media addiction on coping and health related outcomes during a global pandemic. *International Journal of Cognitive Therapy*, 16(4), 571–593. <https://doi.org/10.1007/s41811-023-00183-z>
- Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioral Assessment*, 26(1), 41–54. <https://doi.org/10.1023/B:JOBA.0000007455.08539.94>
- Hidalgo-Fuentes, S., & Fernández-Castilla, B. (2024). Problematic internet use and the big five personality model: An updated three-level meta-analysis. *Behaviour & Information Technology*, 43(14), 3537–3560. <https://doi.org/10.1080/0144929X.2023.2283201>
- Hollett, K. B., & Harris, N. (2020). Dimensions of emotion dysregulation associated with problem video gaming. *Addiction*

- Research & Theory*, 28(1), 38–45. <https://doi.org/10.1080/16066359.2019.1579801>
- Hopwood, C. J., Mulay, A., & Waugh, M. (Eds.) (2019). *The DSM-5 alternative model for personality disorders: Integrating multiple paradigms of personality assessment*. Routledge. <https://doi.org/10.4324/9781315205076>
- Hormes, J. M., Kearns, B., & Timko, C. A. (2014). Craving Face-book? Behavioral addiction to online social networking and its association with emotion regulation deficits. *Addiction*, 109(12), 2079–2088. <https://doi.org/10.1111/add.12713>
- Horwood, S., & Anglim, J. (2021). Emotion regulation difficulties, personality, and problematic smartphone use. *Cyberpsychology, Behavior, and Social Networking*, 24(4), 275–281. <https://doi.org/10.1089/cyber.2020.0328>
- Hunter, S. C., Houghton, S., Zadow, C., Rosenberg, M., Wood, L., Shilton, T., & Lawrence, D. (2017). Development of the adolescent preoccupation with screens scale. *BMC Public Health*, 17(1), 652. <https://doi.org/10.1186/s12889-017-4657-1>
- Hyler, S. E. (2012). Personality diagnostic Questionnaire-4+. [Dataset]. <https://doi.org/10.1037/t07759-000>
- Ioannidis, K., Hook, R., Goudriaan, A. E., Vlies, S., Fineberg, N. A., Grant, J. E., & Chamberlain, S. R. (2019). Cognitive deficits in problematic internet use: Meta-analysis of 40 studies. *British Journal of Psychiatry*, 215(5), 639–646. <https://doi.org/10.1192/bjp.2019.3>
- Johnston, J., & Dinc, L. (2024). Determinants of problematic online gaming in younger and older adults: Emotional dysregulation, trait impulsivity and risk taking. *Current Psychology*, 43(41), 32303–32312. <https://doi.org/10.1007/s12144-024-06739-2>
- Kardefelt-Winther, D. (2014). A conceptual and methodological critique of internet addiction research: Towards a model of compensatory internet use. *Computers in Human Behavior*, 31, 351–354. <https://doi.org/10.1016/j.chb.2013.10.059>
- Kaufman, E. A., Cundiff, J. M., & Crowell, S. E. (2015). The development, factor structure, and validation of the Self-concept and Identity Measure (SCIM): A self-report assessment of clinical identity disturbance. *Journal of Psychopathology and Behavioral Assessment*, 37(1), 122–133. <https://doi.org/10.1007/s10862-014-9441-2>
- Kim, Y.-R., & Tyrer, P. (2010). Controversies surrounding classification of personality disorder. *Psychiatry Investigation*, 7(1), 1–8. <https://doi.org/10.4306/pi.2010.7.1.1>
- Kavaklı, M., Yalçın, S. B., & Coşkun, M. (2024). Internet Addiction on Psycho-Social Symptoms of Happiness and Aggression through Difficulties in Emotion Regulation: Evidence Following COVID-19 Pandemic. *Primenjena Psihologija*, 17(1), 3–26. <https://doi.org/10.19090/pp.v17i1.2466>
- Kim, H. S., Vieira, J. L., Parmar, P. K., Hodgins, D. C., Will Shead, N., & Keough, M. T. (2023). Emotion dysregulation mediates the relationship between adverse childhood experiences and problematic gaming. *Addictive Behaviors*, 136, 107473. <https://doi.org/10.1016/j.addbeh.2022.107473>
- Király, O., Potenza, M. N., Stein, D. J., King, D. L., Hodgins, D. C., Saunders, J. B., ... Demetrovics, Z. (2020). Preventing problematic internet use during the COVID-19 pandemic: Consensus guidance. *Comprehensive Psychiatry*, 100, 152180. <https://doi.org/10.1016/j.comppsy.2020.152180>
- Ko, H. C., Lu, R. B., Shen, J. J., & Shyu, L. Y. (1997). Construction of a screening inventory for major mental disorder in the army. *Annals of the Academy of Medicine, Singapore*, 26(1), 8–12.
- Ko, C.-H., Yen, J.-Y., Chen, S.-H., Yang, M.-J., Lin, H.-C., & Yen, C.-F. (2009). Proposed diagnostic criteria and the screening and diagnosing tool of internet addiction in college students. *Comprehensive Psychiatry*, 50(4), 378–384. <https://doi.org/10.1016/j.comppsy.2007.05.019>
- Kotov, R., Krueger, R. F., Watson, D., Achenbach, T. M., Althoff, R. R., Bagby, R. M., ... Zimmerman, M. (2017). The Hierarchical Taxonomy of Psychopathology (HiTOP): A dimensional alternative to traditional nosologies. *Journal of Abnormal Psychology*, 126(4), 454–477. <https://doi.org/10.1037/abn0000258>
- Kotov, R., Krueger, R. F., Watson, D., Cicero, D. C., Conway, C. C., DeYoung, C. G., ... Wright, A. G. C. (2021). The Hierarchical Taxonomy of Psychopathology (HiTOP): A Quantitative Nosology Based on Consensus of Evidence. *Annu Rev Clin Psychol*, 17, 83–108. <https://doi.org/10.1146/annurev-clinpsy-081219-093304>
- Kovacs, M., Rottenberg, J., & George, C. (2009). Maladaptive mood repair responses distinguish young adults with early-onset depressive disorders and predict future depression outcomes. *Psychological Medicine*, 39(11), 1841–1854. <https://doi.org/10.1017/S0033291709005789>
- Krueger, R. F., Derringer, J., Markon, K. E., Watson, D., & Skodol, A. E. (2012). Initial construction of a maladaptive personality trait model and inventory for DSM-5. *Psychological Medicine*, 42(9), 1879–1890. <https://doi.org/10.1017/S0033291711002674>
- Krueger, R. F., & Markon, K. E. (2006). Reinterpreting comorbidity: A model-based approach to understanding and classifying psychopathology. *Annual Review of Clinical Psychology*, 2, 111–133. <https://doi.org/10.1146/annurev.clinpsy.2.022305.095213>
- Kuss, D. J., & Lopez-Fernandez, O. (2016). Internet addiction and problematic internet use: A systematic review of clinical research. *World Journal of Psychiatry*, 6(1), 143–176. <https://doi.org/10.5498/wjp.v6.i1.143>
- Laconi, S., Kalaitzaki, A., Spritzer, D. T., Hauck, S., Gnisci, A., Sergi, I., ... Sahlan, R. N. (2025). A cross-cultural exploration of problematic internet use, pathological personality traits, defense mechanisms, coping strategies, and self-esteem in 14 countries. *Annales Médico-Psychologiques, Revue Psychiatrique*, 183(4), 400–406. <https://doi.org/10.1016/j.amp.2022.09.008>
- Leichsenring, F., Fonagy, P., Heim, N., Kernberg, O. F., Leweke, F., Luyten, P., ... Steinert, C. (2024). Borderline personality disorder: A comprehensive review of diagnosis and clinical presentation, etiology, treatment, and current controversies. *World Psychiatry*, 23(1), 4–25. <https://doi.org/10.1002/wps.21156>
- Leyro, T. M., Zvolensky, M. J., & Bernstein, A. (2010). Distress tolerance and psychopathological symptoms and disorders: A review of the empirical literature among adults. *Psychological Bulletin*, 136(4), 576–600. <https://doi.org/10.1037/a0019712>
- Li, S., Ren, P., Chiu, M. M., Wang, C., & Lei, H. (2021). The relationship between self-control and internet addiction among students: A meta-analysis. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.735755>

- Linehan, M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*.
- Litten, R. Z., Ryan, M. L., Falk, D. E., Reilly, M., Fertig, J. B., & Koob, G. F. (2015). Heterogeneity of alcohol use disorder: Understanding mechanisms to advance personalized treatment. *Alcoholism, Clinical and Experimental Research*, 39(4), 579–584. <https://doi.org/10.1111/acer.12669>
- Liu, C., & Ma, J.-L. (2019). Adult attachment style, emotion regulation, and social networking sites addiction. *Frontiers in Psychology*, 10, 2352. <https://doi.org/10.3389/fpsyg.2019.02352>
- López-Guerrero, J., Navas, J. F., Perales, J. C., Rivero, F. J., & Muela, I. (2023). The interrelation between emotional impulsivity, craving, and symptoms severity in behavioral addictions and related conditions: A theory-driven systematic review. *Current Addiction Reports*, 10(4), 718–736. <https://doi.org/10.1007/s40429-023-00512-4>
- Love, H., May, R. W., Shafer, J., Fincham, F. D., & Cui, M. (2022). Overparenting, emotion dysregulation, and problematic internet use among female emerging adults. *Journal of Applied Developmental Psychology*, 79. <https://doi.org/10.1016/j.appdev.2021.101376>
- Lu, W.-H., Lee, K.-H., Ko, C.-H., Hsiao, R. C., Hu, H.-F., & Yen, C.-F. (2017). Relationship between borderline personality symptoms and internet addiction: The mediating effects of mental health problems. *Journal of Behavioral Addictions*, 6(3), 434–441. <https://doi.org/10.1556/2006.6.2017.053>
- Marino, C., Caselli, G., Lenzi, M., Monaci, M. G., Vieno, A., Nikčević, A. V., & Spada, M. M. (2019). Emotion regulation and desire thinking as predictors of problematic Facebook use. *Psychiatric Quarterly*, 90(2), 405–411. <https://doi.org/10.1007/s11126-019-09628-1>
- McHugh, M. L. (2012). Interrater reliability: The kappa statistic. *Biochemia Medica*, 22(3), 276–282.
- Montag, C., & Hegelich, S. (2020). Understanding detrimental aspects of social media use: Will the real culprits please stand up? *Frontiers in Sociology*, 5. <https://doi.org/10.3389/fsoc.2020.599270>
- Morey, L. C. (2017). Development and initial evaluation of a self-report form of the DSM–5 level of personality functioning scale. *Psychological Assessment*, 29(10), 1302–1308. <https://doi.org/10.1037/pas0000450>
- Mulay, A. L., Waugh, M. H., Fillauer, J. P., Bender, D. S., Bram, A., Cain, N. M., ... Skodol, A. E. (2019). Borderline personality disorder diagnosis in a new key. *Borderline Personality Disorder and Emotion Dysregulation*, 6. <https://doi.org/10.1186/s40479-019-0116-1>
- Mullins-Sweatt, S. N., Bornoalova, M. A., Carragher, N., Clark, L. A., Corona Espinosa, A., Jonas, K., ... Watts, A. L. (2022). HiTOP assessment of externalizing antagonism and disinhibition. *Assessment*, 29(1), 34–45. <https://doi.org/10.1177/10731911211033900>
- Murthy, V. H. (2024). Social media platforms need a health warning. *The New York Times*, A24.
- Musetti, A., Mancini, T., Corsano, P., Santoro, G., Cavallini, M. C., & Schimmenti, A. (2019). Maladaptive personality functioning and psychopathological symptoms in problematic video game players: A person-centered approach. *Frontiers in Psychology*, 10. <https://doi.org/10.3389/fpsyg.2019.02559>
- Musetti, A., Terrone, G., & Schimmenti, A. (2018). An exploratory study on problematic internet use predictors: Which role for attachment and dissociation? *Clinical Neuropsychiatry*, 15(1), 35–41.
- National Institutes of Health. (2021). *Quality assessment tool for observational cohort and cross-sectional studies*. National Heart, Lung, and Blood Institute. <https://www.nhlbi.nih.gov/health-topics/study-quality-assessment-tools>.
- Nazari, A., Mafakheri, N., Shafiei, R., Nargesi, F., Sharp, C., & Komasi, S. (2025). Decoding personality functioning: The impact of DSM-5 pathological traits mediated by emotion dysregulation and metacognition. *Borderline Personality Disorder and Emotion Dysregulation*, 12(1), 40. <https://doi.org/10.1186/s40479-025-00315-1>
- Office of the Surgeon General. (2023). *Social media and youth mental health: The U.S. surgeon general's advisory*. US Department of Health and Human Services. <http://www.ncbi.nlm.nih.gov/books/NBK594761/>.
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, n71. <https://doi.org/10.1136/bmj.n71>
- Patton, J. H., Stanford, M. S., & Barratt, E. S. (1995). Factor structure of the Barratt impulsiveness scale. *Journal of Clinical Psychology*, 51(6), 768–774. [https://doi.org/10.1002/1097-4679\(199511\)51:6%253C768::AID-JCLP2270510607%253E3.0.CO;2-1](https://doi.org/10.1002/1097-4679(199511)51:6%253C768::AID-JCLP2270510607%253E3.0.CO;2-1)
- Pettorruso, M., Valle, S., Cavic, E., Martinotti, G., di Giannantonio, M., & Grant, J. E. (2020). Problematic Internet use (PIU), personality profiles and emotion dysregulation in a cohort of young adults: Trajectories from risky behaviors to addiction. *Psychiatry Research*, 289, 113036. <https://doi.org/10.1016/j.psychres.2020.113036>
- Pilkonis, P. A., Heape, C. L., Proietti, J. M., Clark, S. W., McDavid, J. D., & Pitts, T. E. (1995). The reliability and validity of two structured diagnostic interviews for personality disorders. *Archives of General Psychiatry*, 52(12), 1025–1033. <https://doi.org/10.1001/archpsyc.1995.03950240043009>
- Pontes, H. M., & Griffiths, M. D. (2015). Measuring DSM-5 internet gaming disorder: Development and validation of a short psychometric scale. *Computers in Human Behavior*, 45, 137–143. <https://doi.org/10.1016/j.chb.2014.12.006>
- Rogier, G., Beomonte Zobel, S., Tosi, S., Tambelli, R., & Velotti, P. (2023). Personality disorders traits, interpersonal problems and emotion dysregulation as predictors of Facebook addiction. *Journal of Substance Use*, 29(4), 572–578. <https://doi.org/10.1080/14659891.2023.2194418>
- Schimmenti, A., Musetti, A., Costanzo, A., Terrone, G., Maganuco, N. R., Aglieri Rinella, C., & Gervasi, A. M. (2021). The unfabulous four: Maladaptive personality functioning, insecure attachment, dissociative experiences, and problematic internet use among young adults. *International Journal of Mental Health and Addiction*, 19(2), 447–461. <https://doi.org/10.1007/s11469-019-00079-0>
- Schluter, M. G., Hodgins, D. C., Wolfe, J., & Wild, T. C. (2018). Can one simple questionnaire assess substance-related and behavioural addiction problems? Results of a proposed new screener for community epidemiology. *Addiction (Abingdon, England)*, 113(8), 1528–1537. <https://doi.org/10.1111/add.14166>

- Sevintuna, A. F., Bornovalova, M. A., & Salomon, K. (2024). Correlates of borderline personality disorder traits and internet gaming disorder in college students. *Journal of Personality*, 93(6), 1226–1234. <https://doi.org/10.1111/jopy.13003>
- Shapira, N. A., Lessig, M. C., Goldsmith, T. D., Szabo, S. T., Lazoritz, M., Gold, M. S., & Stein, D. J. (2003). Problematic internet use: Proposed classification and diagnostic criteria. *Depression and Anxiety*, 17(4), 207–216. <https://doi.org/10.1002/da.10094>
- Simons, J. S., & Gaher, R. M. (2005). The distress tolerance scale: Development and validation of a self-report measure. *Motivation and Emotion*, 29(2), 83–102. <https://doi.org/10.1007/s11031-005-7955-3>
- Sloan, E., Hall, K., Moulding, R., Bryce, S., Mildred, H., & Staiger, P. K. (2017). Emotion regulation as a transdiagnostic treatment construct across anxiety, depression, substance, eating and borderline personality disorders: A systematic review. *Clinical Psychology Review*, 57, 141–163. <https://doi.org/10.1016/j.cpr.2017.09.002>
- Southward, M. W., & Cheavens, J. S. (2018). Identifying core deficits in a dimensional model of borderline personality disorder features: A network analysis. *Clinical Psychological Science: A Journal of the Association for Psychological Science*, 6(5), 685–703. <https://doi.org/10.1177/2167702618769560>
- Spada, M. M. (2014). An overview of problematic internet use. *Addictive Behaviors*, 39(1), 3–6. <https://doi.org/10.1016/j.addbeh.2013.09.007>
- Starcevic, V., Berle, D., & Arnáez, S. (2020). Recent insights into cyberchondria. *Current Psychiatry Reports*, 22(11), 56. <https://doi.org/10.1007/s11920-020-01179-8>
- Stephenson, M. T., Velez, L. F., Chalela, P., Ramirez, A., & Hoyle, R. H. (2007). The reliability and validity of the Brief Sensation Seeking Scale (BSSS-8) with young adult Latino workers: Implications for tobacco and alcohol disparity research. *Addiction (Abingdon, England)*, 102(Suppl 2), 79–91. <https://doi.org/10.1111/j.1360-0443.2007.01958.x>
- Stulcbauer, L. B., Chen, W., Gross, J. J., Krueger, R. F., & Preece, D. A. (2024). Mapping emotion regulation patterns within the alternative model of personality disorders personality traits. *Journal of Personality Disorders*, 38(4), 311–329. <https://doi.org/10.1521/pedi.2024.38.4.311>
- Suler, J. (2004). The online disinhibition effect. *CyberPsychology & Behavior*, 7(3), 321–326. <https://doi.org/10.1089/1094931041291295>
- Tejeiro Salguero, R. A., & Morán, R. M. B. (2002). Measuring problem video game playing in adolescents. *Addiction*, 97(12), 1601–1606. <https://doi.org/10.1046/j.1360-0443.2002.00218.x>
- Tiego, J., Lochner, C., Ioannidis, K., Brand, M., Stein, D. J., Yücel, M., ... Chamberlain, S. R. (2019). Problematic use of the internet is a unidimensional quasi-trait with impulsive and compulsive subtypes. *BMC Psychiatry*, 19(1), 348. <https://doi.org/10.1186/s12888-019-2352-8>
- Trott, M., Driscoll, R., Irlado, E., & Pardhan, S. (2022). Changes and correlates of screen time in adults and children during the COVID-19 pandemic: A systematic review and meta-analysis. *EClinicalMedicine*, 48, 101452. <https://doi.org/10.1016/j.eclinm.2022.101452>
- Vanwoerden, S., & Stepp, S. D. (2022). The diagnostic and statistical manual of mental disorders, fifth edition, alternative model conceptualization of borderline personality disorder: A review of the evidence. *Personality Disorders*, 13(4), 402–406. <https://doi.org/10.1037/per0000563>
- Vogel, E. A., Rose, J. P., Roberts, L. R., & Eckles, K. (2014). Social comparison, social media, and self-esteem. *Psychology of Popular Media Culture*, 3(4), 206–222. <https://doi.org/10.1037/ppm0000047>
- Watts, A. L., Latzman, R. D., Boness, C. L., Kotov, R., Keyser-Marcus, L., DeYoung, C. G., ... Ramey, T. (2023). New approaches to deep phenotyping in addictions. *Psychology of Addictive Behaviors*, 37(3), 361–375. <https://doi.org/10.1037/adb0000878>
- Wei, M., Russell, D. W., Mallinckrodt, B., & Vogel, D. L. (2007). The experiences in close relationship scale (ECR)-short form: Reliability, validity, and factor structure. *Journal of Personality Assessment*, 88(2), 187–204. <https://doi.org/10.1080/00223890701268041>
- Widiger, T. A., & Costa, P. T., Jr (1994). Personality and personality disorders. *Journal of Abnormal Psychology*, 103(1), 78–91. <https://doi.org/10.1037/0021-843X.103.1.78>
- Widiger, T., & Trull, T. (2007). Plate tectonics in the classification of personality disorder. *American Psychologist*, 62, 71–83. <https://doi.org/10.1037/0003-066X.62.2.71>
- Wu, J. Y.-W., Ko, H.-C., & Lane, H.-Y. (2016a). Personality disorders in female and male college students with internet addiction. *Journal of Nervous and Mental Disease*, 204(3), 221–225. <https://doi.org/10.1097/NMD.0000000000000452>
- Wu, J. Y.-W., Ko, H.-C., Tung, Y.-Y., & Li, C.-C. (2016b). Internet use expectancy for tension reduction and disinhibition mediates the relationship between borderline personality disorder features and internet addiction among college students – One-year follow-up. *Computers in Human Behavior*, 55, 851–855. <https://doi.org/10.1016/j.chb.2015.09.047>
- Young, K. S. (1998). Internet addiction: The emergence of a new clinical disorder. *CyberPsychology & Behavior*, 1(3), 237–244. <https://doi.org/10.1089/cpb.1998.1.237>
- Zadra, S., Bischof, G., Besser, B., Bischof, A., Meyer, C., John, U., & Rumpf, H.-J. (2016). The association between internet addiction and personality disorders in a general population-based sample. *Journal of Behavioral Addictions*, 5(4), 691–699. <https://doi.org/10.1556/2006.5.2016.086>
- Zanarini, M. C., Vujanovic, A. A., Parachini, E. A., Boulanger, J. L., Frankenburg, F. R., & Hennen, J. (2003). A screening measure for BPD: The McLean screening instrument for borderline personality disorder (MSI-BPD). *Journal of Personality Disorders*, 17(6), 568–573. <https://doi.org/10.1521/pedi.17.6.568.25355>

Appendix A1

Trait-Measure Mapping

Measure	Facet	Mapping rationale	Included studies
Negative affectivity			
Personality Inventory for DSM-5 – Negative Affectivity (PID-5/PID-5-BF NA)	–	Direct AMPD domain measure for Negative Affectivity (Krueger et al., 2012)	Musetti et al. (2019), Schimmenti et al. (2021), Rogier et al. (2023)
Difficulties in Emotion Regulation Scale (DERS-36/DERS-18/DERS-16)	Emotional Lability	Used in AMPD research as a proxy for Emotional Lability, indexing affective instability and emotion dysregulation (Gratz & Roemer, 2004, Nazari et al., 2025)	Hormes et al. (2014), Akbari (2017), Evren et al. (2019), Marino et al. (2019), Liu and Ma (2019), Musetti et al. (2019), Hollett and Harris (2020), Pettorruso et al. (2020), Horwood and Anglim (2021), Love et al. (2022), Kim et al. (2023), Rogier et al. (2023), Johnston and Dinc (2024), Kavaklı et al. (2024), Elkin et al. (2025)
Distress Tolerance Scale (DTS)	Emotional Lability	Assesses perceived ability to endure emotional distress. Lower tolerance indicates vulnerability to affective instability (Leyro, Zvolensky, & Bernstein, 2010, Simons & Gaher, 2005)	Akbari (2017)
Feelings and Me Questionnaire – Maladaptive Subscale (FAM)	Emotional Lability	Assesses maladaptive emotion regulation strategies used in response to distress (Kovacs et al., 2009)	Gratz et al. (2023)
Disinhibition			
PID-5/PID-5-BF – Disinhibition	–	Direct AMPD domain measure for Disinhibition (Krueger et al., 2012)	Musetti et al. (2019), Schimmenti et al. (2021), Rogier et al. (2023)
DERS – Impulse Subscale	Impulsivity	The DERS–Impulse subscale captures behavioral dyscontrol under emotional arousal, a construct distinct from global emotion dysregulation and theoretically aligned with Impulsivity (Gratz & Roemer, 2004)	Hormes et al. (2014), Akbari (2017), Evren et al. (2019), Hollett and Harris (2020), Pettorruso et al. (2020), Horwood and Anglim (2021), Kim et al. (2023), Johnston and Dinc (2024), Sevintuna et al. (2024)
Barratt Impulsiveness Scale (BIS-11)	Impulsivity	Measures trait-level attentional, motor, and non-planning impulsivity (Patton et al., 1995)	Zadra et al. (2016), Pettorruso et al. (2020)
Short UPPS-P Impulsive Behavior Scale (SUPPS-P)	Impulsivity	Measures five facets of impulsivity: sensation seeking, lack of premeditation, lack of perseverance, negative urgency, and positive urgency (Cyders et al., 2014)	Johnston and Dinc (2024)
Brief Sensation Seeking Scale (BSSS-8)	Risk Taking	Assesses attraction to novelty, stimulation, and potentially dangerous experiences, aligning primarily with the AMPD Risk Taking facet (Stephenson et al., 2007)	Chabrol et al. (2017)

(continued)

Continued

Measure	Facet	Mapping rationale	Included studies
Psychoticism			
PID-5/PID-5-BF – Psychoticism	–	Direct AMPD domain measure for Psychoticism (Krueger et al., 2012)	Musetti et al. (2019), Schimmenti et al. (2021), Rogier et al. (2023)
Dissociative Experiences Scale (DES/DES-II)	Perceptual Dysregulation	Assesses core features of dissociation (absorption, depersonalization, and derealization), conceptually aligned with the AMPD Perceptual Dysregulation facet (Bernstein & Putnam, 1986)	De Berardis et al. (2009), Canan et al. (2012), Dalbudak et al. (2014), Musetti et al. (2018), Evren et al. (2019), Schimmenti et al. (2021)
Detachment			
PID-5/PID-5-BF – Detachment	–	Direct AMPD domain measure for Detachment (Krueger et al., 2012)	Musetti et al. (2019), Schimmenti et al. (2021), Rogier et al. (2023)
CRITERION A: SELF & interpersonal functioning			
Self-Concept and Identity Measure (SCIM)	Identity Functioning	Assesses identity diffusion, incoherence, and instability, mapping directly onto AMPD Criterion A identity impairment (Kaufman et al., 2015)	Chen et al. (2019)
Inventory of Parent and Peer Attachment (IPPA-24)	Interpersonal Functioning	Evaluates parent and peer attachment across dimensions of trust, communication, and separation (Armsden & Greenberg, 1987)	Chabrol et al. (2017)
Experiences in Close Relationship Scale – Short Version (ECR-SV)	Interpersonal Functioning	Assesses attachment anxiety and avoidance, core disruptions in intimacy, trust, and self–other representations, mapping directly onto AMPD Criterion A impairments in interpersonal functioning (Wei et al., 2007)	Liu and Ma (2019)
Relationship Questionnaire (RQ)	Interpersonal Functioning	Attachment styles reflect (i.e., secure, fearful, preoccupied, dismissing) align with intimacy functioning in interpersonal relationships (Bartholomew & Horowitz, 1991)	Musetti et al. (2018), Schimmenti et al. (2021)
Interpersonal Problem Index – 47 (IPI-47)	Interpersonal Functioning	Measures intensity of interpersonal problems, including interpersonal sensitivity, interpersonal ambivalence, aggressiveness, need for social approval, and lack of sociability (Pilkonis et al., 1995)	Rogier et al. (2023)

Note. Measures are organized by AMPD facet and include brief rationales describing their conceptual correspondence with either maladaptive personality traits (Criterion B) or personality functioning (Criterion A). Broad symptom screeners and contextual measures (e.g., depression, anxiety, and general symptom indices) were not mapped to AMPD domains and are not included. Studies may appear in multiple rows when multiple AMPD-relevant constructs were assessed.

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