Activitas Nervosa Superior Rediviva Volume 68 No. 1 2026
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ORIGINAL ARTICLE **DOI: https://doi.org/10.31577/ansr.2026.68.1.3**

Insomnia in patients with personality disorders: A narrative review of clinical characteristic and therapeutic implications

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Submitted: 2025-12-13 *Accepted: 2026-02-25* *Published online: 2026-04-15*

Key words: **insomnia; personality disorders; sleep disturbances; CBT-I; schema therapy complex trauma**

Act Nerv Super Rediviva 2026; **68**(1): 26–39 68012601 © 2026 Act Nerv Super Rediviva

Abstract

BACKGROUND: Insomnia is a frequent but often overlooked problem in patients with personality disorders. Despite its significant impact on emotional regulation, illness course, and treatment outcomes, insomnia is frequently underdiagnosed and undertreated.
AIM: To summarise current knowledge on the prevalence, characteristics, and clinical relevance of insomnia in patients with personality disorders and to discuss therapeutic implications.
METHODS: This article is a narrative review of the literature. Relevant studies were identified through searches of PubMed, PsycINFO, and Web of Science focusing on personality disorders, sleep disturbances, and clinical outcomes. Sixty publications were included based on clinical relevance; no formal quality appraisal was performed.
RESULTS: Insomnia affects approximately 40–70% of patients with personality disorders, with the highest prevalence observed in borderline personality disorder. The clinical presentation of insomnia varies across personality disorder types and includes difficulties initiating sleep, sleep fragmentation, early morning awakenings, and non-restorative sleep. Insomnia is associated with greater emotional dysregulation, increased suicide risk, and poorer treatment response.
CONCLUSION: Insomnia represents a clinically significant and modifiable therapeutic target in patients with personality disorders. Systematic sleep assessment and the integration of non-pharmacological approaches, particularly cognitive behavioural therapy for insomnia and schema therapy, may improve clinical outcomes and long-term prognosis.

Introduction

Insomnia is one of the most common sleep disorders in the adult population and represents a significant health problem with wide-ranging consequences for both mental and somatic health (Akpoveta *et al.* 2025). Current diagnostic systems, DSM-5-TR and ICD-11, define insomnia as a disorder characterized by difficulty initiating sleep, maintaining sleep, or early morning awakening, persisting for at least three months and leading to clinically significant daytime impairment (American Psychiatric Association 2022; World Health Organization 2019). Insomnia is no longer understood merely as a secondary symptom of other mental disorders (Akpoveta *et al.* 2025). Instead, it is increasingly conceptualized as an independent and frequently comorbid diagnosis that can substantially influence the course and prognosis of the underlying condition (Riemann *et al.* 2017).

Insomnia occurs significantly more often in patients with personality disorders than in the general population. Epidemiological and clinical studies indicate that clinically relevant sleep disturbances affect approximately 40–70% of these patients, with the highest prevalence consistently reported in borderline personality disorder (BPD) (Semiz *et al.* 2008; Sansone & Sansone 2011). Despite this high prevalence, insomnia in this population often remains underdiagnosed and undertreated. Clinical attention is frequently directed primarily toward affective instability, impulsivity, interpersonal conflicts, and suicidal behaviour, while sleep problems receive less systematic focus. Borderline personality disorder is discussed in greater detail throughout this review due to its high clinical risk, the consistency of findings across studies, and the substantially larger evidence base compared to other personality disorder types.

The core characteristics of personality disorders create particularly unfavourable conditions for the development and maintenance of insomnia. These include long-standing emotional hyperreactivity, chronic psychophysiological hyperarousal, rigid maladaptive cognitive schemas, and ineffective stress regulation strategies (Linehan 1993; Young *et al.* 2003). In patients with borderline personality disorder, these vulnerabilities are further compounded by heightened sensitivity to interpersonal stressors, intense pre-sleep rumination, fear of abandonment, and nocturnal activation of emotionally salient memories. Together, these factors contribute to sleep fragmentation and reduced restorative quality of sleep (Selby 2013; Winsper *et al.* 2017).

Importantly, insomnia in patients with personality disorders is not merely an accompanying symptom but represents a significant maintaining factor of psychopathology. Chronic sleep deprivation impairs emotion regulation, lowers frustration tolerance, increases impulsivity, and is associated with an elevated risk of self-harm and suicidal behaviour (Kearns *et al.* 2020; Pigeon *et al.* 2012). In patients with BPD, several studies have shown that sleep deterioration often precedes increases in affective instability and crisis behaviour, rather than resulting from them (Selby *et al.* 2013). Insomnia may therefore function as a trigger for symptom exacerbation and relapse.

Despite these findings, the treatment of insomnia in patients with personality disorders in routine clinical practice is frequently limited to pharmacotherapy. This approach carries substantial risks, including the development of tolerance and dependence, worsening of emotional regulation, and adverse interactions with other psychopharmacological treatments (Krystal 2012). In contrast, non-pharmacological interventions, particularly cognitive behavioural therapy for insomnia (CBT-I), remain underutilized in this population, despite growing evidence supporting their efficacy and safety (Harvey *et al.* 2015; Riemann *et al.* 2017).

The aim of this article is to narratively examine insomnia in patients with personality disorders, describe its clinical characteristics, and explore its relationship to specific personality disorder types and comorbid conditions. Furthermore, the article discusses the therapeutic implications of these findings, with particular emphasis on the importance of active assessment and targeted treatment of insomnia as an integral component of comprehensive care for patients with personality disorders.

Method

This article is conceived as a narrative review of the professional literature addressing insomnia in patients with personality disorders. The primary aim was not to conduct a systematic meta-analysis, but rather to integrate current findings from clinical research and theoretical literature and to interpret them within the context of contemporary psychiatric and psychotherapeutic practice.

The literature search was conducted using the international databases PubMed/MEDLINE, PsycINFO, and Web of Science. The focus was placed on English-language publications published between 2000 and 2025, with seminal older works included where clinically relevant. Searches were performed using combinations of relevant keywords and their variants, including insomnia, sleep disturbance, personality disorder, borderline personality disorder, emotion regulation, hyperarousal, CBT-I, and psychotherapy. In addition to recent studies, older but frequently cited works with substantial theoretical or clinical relevance were also included in order to capture the developmental background of current concepts.

The initial searches yielded approximately 221 records (depending on database and keyword combinations). After removal of duplicates and screening for relevance based on titles and abstracts,

approximately 72 publications were retained for full-text consideration, of which 60 sources were ultimately incorporated into the present narrative synthesis. The review encompassed a broad range of publication types, including review articles and systematic reviews, observational and clinical studies examining sleep disturbances in personality disorders, papers exploring the relationship between sleep, emotion regulation, and suicidality, as well as relevant clinical guidelines.

The included literature addressed both the general population of patients with personality disorders and studies specifically focused on borderline personality disorder, in which insomnia has been investigated most extensively. The selection of sources was guided primarily by clinical relevance, methodological soundness, and potential applicability to everyday practice. No formal, quantitative quality appraisal (e.g., risk-of-bias scoring) was performed, and study quality was therefore considered pragmatically rather than rated systematically, which is consistent with the narrative review approach.

The findings were subsequently synthesised into thematic units reflecting the prevalence and characteristics of insomnia, its relationship to the core psychopathology of personality disorders, and its therapeutic implications. The methodological approach of this review follows established recommendations for narrative literature reviews in clinical psychiatry (Green *et al.* 2006; Ferrari 2015).

Results

Prevalence and nature of insomnia in personality disorders

Available studies consistently indicate that insomnia is among the most frequent comorbid conditions in patients with personality disorders. The prevalence of clinically significant insomnia in this population is estimated to range between approximately 40% and 70%, which markedly exceeds the prevalence observed in the general population (Semiz *et al.* 2008; Sansone & Sansone 2011). The highest frequency and severity of sleep disturbances have been repeatedly documented in patients with borderline personality disorder. However, an increased occurrence of insomnia has also been reported in other personality disorder types, particularly avoidant and anankastic personality disorders (Somma *et al.* 2018).

From a clinical standpoint, patients with personality disorders most commonly present with combined forms of insomnia. Difficulties with sleep initiation are frequently linked to pronounced cognitive and emotional activation before bedtime, persistent internal tension, and repetitive rumination (Roth *et al.* 1976). Fragmented sleep characterised by frequent nocturnal awakenings is observed primarily in individuals with emotionally unstable personality structures and is often accompanied by heightened emotional reactivity to both internal and external stimuli (Akram *et al.* 2019). Early morning awakening occurs more frequently in patients with comorbid depressive symptoms, although it may also be present in individuals experiencing chronic psychophysiological hyperarousal (Winsper *et al.* 2017; Selby 2013).

The severity of insomnia in this population is most commonly assessed using the Insomnia Severity Index (ISI). Findings across studies indicate that a substantial proportion of patients with personality disorders score within the range corresponding to moderate to severe insomnia. Higher ISI scores are consistently associated with greater levels of emotional dysregulation, increased impulsivity, and elevated subjective distress. This pattern supports the notion of a close and clinically meaningful relationship between sleep disturbances and the core psychopathological features of personality disorders (Selby *et al.* 2013; Kearns *et al.* 2020).

Differences between types of personality disorders and the nature of insomnia

The available literature shows that insomnia does not manifest itself homogeneously in individual personality disorders, but its clinical picture differs depending on the dominant personality traits, the level of emotional regulation, the degree of interpersonal sensitivity and the nature of cognitive activity (Table 1). The differences can be clearly described within the traditional division of personality disorders into three clusters according to DSM-5-TR (American Psychiatric Association 2022).

Cluster A personality disorders (paranoid, schizoid, schizotypal)

In cluster A personality disorders, the issue of insomnia has been less systematically investigated than in cluster B and C disorders. Nevertheless, available clinical observations and limited empirical studies suggest that sleep disorders in these patients have a specific, qualitatively different character. Unlike Cluster B and C disorders, the evidence base for Cluster A rests largely on case series and small observational samples rather than controlled studies; claims in this section should therefore be interpreted with particular caution.

Patients with schizoid, schizotypal or paranoid personality disorder may suffer from sleep disorders associated with abnormal perceptions, bizarre dreams, increased nighttime anxiety or beliefs about their own danger (Koffel *et al.* 2009; Koffel *et al.* 2018). Clinical records describe an increased incidence of nightmares, restless sleep and subjectively reduced sleep quality (van Trigt *et al.* 2013). In addition, schizotypal personality disorder is characterized by hallucinatory phenomena in the hypnagogic or hypnopompic state, which can further increase fears of falling asleep and disrupt sleep continuity (Watson 2001).

In *paranoid personality disorder*, insomnia is most often characterized by prolonged sleep latency, which

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is associated with marked hypervigilance, increased alertness, and pervasive distrust of the environment. Patients often describe difficulty "relaxing" before sleep, increased sensitivity to sounds, the need to repeatedly check the environment, and fears of possible threats during the night (Akram *et al.* 2023). Sleep is often light, fragmented, and easily interrupted, with patients often reporting a subjective feeling that they "never sleep deeply enough," which can lead to chronic fatigue and further reinforce paranoid interpretations of daily events.

Schizoid personality disorder is characterized by emotional withdrawal, introversion, and marked social isolation. Social isolation can create space for extensive rumination and introspective mental activity, which can interfere with falling asleep and sleep continuity (Triebwasser *et al.* 2012). However, insomnia in schizoid disorder occurs less consistently and has a rather atypical course. Irregular sleep rhythms, sleep phase shifts, and a reduced subjective need for sleep are typical. Patients often do not perceive insomnia as a clinically significant problem and rarely spontaneously report difficulties, yet objective assessment can reveal fragmented and poorly restorative sleep (Conway *et al.* 2025).

In *schizotypal personality disorder*, on the other hand, sleep disturbances tend to be more frequent and clinically more pronounced. Difficulty falling asleep and frequent nighttime awakenings are typical, often accompanied by bizarre thoughts, unusual perceptual experiences, intense dreams, or nightmares (Fabbri *et al.* 2022). Sleep is rated by patients as restless, emotionally burdensome, and not very restorative, with a low sense of regeneration upon awakening. These sleep difficulties may secondarily contribute to the deepening of cognitive disorganization, emotional dysregulation, and increased vulnerability to stress.

Cluster B personality disorders (borderline, histrionic, narcissistic, antisocial)

Cluster B personality disorders show the strongest and most consistent association with sleep disturbances, both in terms of prevalence and clinical severity. Among these disorders, borderline personality disorder represents a distinct and clinically best-studied entity in relation to sleep pathology. For this reason, greater attention is devoted to this diagnosis in the present chapter. Insomnia constitutes one of the most prominent and clinically consequential accompanying symptoms of borderline personality disorder, with substantial implications for emotion regulation, impulsivity, and the risk of crisis behaviour.

Patients with *borderline personality disorder* typically present with a combined form of insomnia, characterised by prolonged sleep latency, fragmented sleep, and early morning awakenings (Vanek *et al.* 2021). Dominant maintaining factors include heightened emotional activation, persistent autonomic tension, intensive nocturnal rumination, and pronounced reactivity to interpersonal stressors (Selby 2013; Harvey *et al.* 2011). Sleep quality in these patients often fluctuates in close temporal association with daily interpersonal events, further supporting the strong bidirectional link between sleep and emotional regulation (Winsper *et al.* 2017). Clinically, impaired sleep is closely associated with increased impulsivity, self-harming behaviour, and suicidal ideation, and frequently precedes the onset of acute crisis states (Fitzpatrick *et al.* 2020).

Empirical studies consistently demonstrate that individuals with borderline personality disorder experience sleep disturbances significantly more often than healthy controls (Bastien *et al.* 2008; Benson *et al.* 1990), as well as more frequently than patients with depressive disorders without comorbid personality pathology (De la Fuente *et al.* 2004). Despite this robust evidence, sleep disturbances in borderline personality disorder have long remained relatively neglected in both clinical practice and research, with therapeutic focus traditionally directed towards affective and interpersonal symptoms (Winsper & Tang 2014).

Polysomnographic studies and narrative syntheses provide objective support for these clinical observations. They describe disturbances in sleep continuity, reduced total sleep time, lower sleep efficiency, prolonged sleep latency, and an increased number of nocturnal awakenings in patients with borderline personality disorder (Oltmanns & Oltmanns 2015). Alterations in REM sleep architecture and slow-wave sleep have also been reported. However, findings regarding shortened REM latency remain inconsistent across studies, with some studies failing to replicate earlier positive findings (Hafizi 2013; Simor & Horváth 2013). This inconsistency may partly reflect methodological heterogeneity in polysomnographic protocols and the confounding effects of comorbid depression..

Disturbances in circadian regulation represent another relevant area of research interest. Patients with borderline personality disorder have been reported to show a higher prevalence of delayed sleep phase syndrome (DSPS) (Dagan *et al.* 1998), increased variability in daytime and nocturnal activity patterns (Bromundt *et al.* 2013), and more pronounced differences in sleep–wake timing between weekdays and weekends (Huynh *et al.* 2015). These findings point to a broader dysregulation of biological rhythms that may further compromise sleep stability.

A particularly robust and repeatedly confirmed phenomenon is the association between borderline personality disorder and nightmares (van Trigt *et al.* 2025). Nightmares occur more frequently both in clinical samples (Lloyd *et al.* 1983) and in community populations (Claridge *et al.* 1998; Lereya *et al.* 2016). Longitudinal studies suggest a prospective relationship between nightmares and borderline personality disorder symptoms in both the short and long term (Selby *et al.* 2013; Lereya *et al.* 2016). Clinically, night-

mares may contribute to worsening daytime emotional dysregulation and play a role in the escalation of symptoms and crisis behaviour (Selby *et al.* 2013).

On a subjective level, patients with borderline personality disorder consistently report poorer sleep quality and longer sleep latency compared with healthy controls (Bromundt *et al.* 2013; Sansone *et al.* 2010; Selby 2013). Earlier debates questioned whether these patients tend to overestimate the severity of their sleep problems (Bastien *et al.* 2008; Philipsen *et al.* 2005). However, more recent findings support the interpretation that the primary issue lies not in perceptual distortion, but in maladaptive cognitive–emotional responses to insomnia, which may interfere with recovery and contribute to symptom maintenance (Plante *et al.* 2013).

The relationship between insomnia and self-destructive behaviour represents a particularly serious clinical concern (Jørgensen *et al.* 2025). Sleep deprivation has been shown to be associated with increases in impulsivity, self-harming behaviour, and suicidal ideation (Plante *et al.* 2025). Moreover, longitudinal evidence suggests that insomnia may function as a predictor of acute symptom deterioration and crisis episodes in patients with borderline personality disorder (Pigeon *et al.* 2012; Kearns *et al.* 2020).

In *histrionic personality disorder*, insomnia appears less consistently and is typically more situational than in borderline personality disorder. Sleep disturbances in this group are strongly influenced by fluctuations in emotional arousal, heightened reactivity to interpersonal events, and an increased need for stimulation and external validation. Difficulties with sleep initiation are particularly common following emotionally charged situations, such as interpersonal conflicts, social overinvolvement, or experiences perceived as rejection or loss of attention. Irregular sleep–wake patterns and subjectively reported restless or non-restorative sleep are also frequently described (Akram *et al.* 2019).

From a clinical perspective, insomnia in histrionic personality disorder is often closely linked to behavioural and interpersonal patterns. Evening and nocturnal hours may be characterised by prolonged social activity, excessive use of digital media, or continued emotional engagement with others, which further increases physiological and cognitive arousal. These behaviours may delay sleep onset and disrupt circadian stability, even in the absence of a primary sleep disorder. Emotional activation before bedtime is often accompanied by vivid imagery, fluctuating affect, and difficulty disengaging from interpersonal narratives, which contributes to sleep-onset insomnia.

In *narcissistic personality disorder*, insomnia most commonly manifests as prolonged sleep latency and subjectively shallow or non-restorative sleep. These sleep difficulties are closely associated with persistent nocturnal rumination focused on performance, achievement, social status, and perceived evaluation by others (Conway *et al.* 2025). Cognitive activity before sleep is often dominated by self-referential thoughts, replaying of interpersonal encounters, and anticipatory concerns regarding future success or potential failure.

A central maintaining factor of insomnia in narcissistic personality disorder is heightened sensitivity to threats to self-esteem. Experiences of criticism, perceived inadequacy, or loss of admiration during the day may trigger intense internal reactions that persist into the night. This vulnerability frequently translates into increased cognitive and emotional arousal at bedtime, characterised by self-critical or defensive internal dialogue, efforts to restore a sense of superiority, or fantasies of future success. As a consequence, the ability to disengage mentally and transition into sleep is impaired, leading to delayed sleep onset and reduced sleep efficiency.

From a behavioural perspective, patients with narcissistic personality disorder may attempt to counteract internal feelings of inadequacy through continued work, excessive planning, or engagement in stimulating activities late in the evening. Such behaviours further reinforce physiological arousal and disrupt circadian rhythms. Sleep may be perceived as unproductive or secondary to performance-related goals, which can result in irregular sleep schedules and insufficient prioritisation of rest.

Subjectively, patients often report a sense of being mentally active or "never fully switching off" during the night, even when objective sleep duration appears adequate. This perceived superficiality of sleep is frequently accompanied by daytime fatigue, irritability, and reduced frustration tolerance, which may further exacerbate interpersonal difficulties and reinforce maladaptive coping strategies centred on achievement and control.

Clinically, insomnia in narcissistic personality disorder may remain underrecognized, as patients are less likely to present sleep complaints spontaneously and may minimise difficulties that conflict with their self-image of competence and resilience. When insomnia is acknowledged, it is often framed in terms of external demands or situational stress rather than internal vulnerability. Effective assessment therefore requires careful exploration of cognitive pre-sleep processes, self-esteem regulation, and the meaning attributed to sleep and rest. Therapeutic interventions may benefit from addressing maladaptive performance standards, promoting acceptance of vulnerability, and fostering more flexible attitudes towards rest and recovery as legitimate components of functioning.

In *antisocial personality disorder*, sleep disturbances are relatively common, although they are often shaped primarily by behavioural and lifestyle-related factors rather than by pronounced emotional or cognitive hyperarousal. Typical features include highly irregular sleep–wake patterns, reduced total sleep duration, and frequent reliance on alcohol or other addictive substances as maladaptive strategies to induce or main-

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tain sleep (Provencher *et al.* 2020). These patterns are often embedded within broader difficulties in impulse control, sensation seeking, and disregard for long-term consequences.

Sleep in individuals with antisocial personality disorder is frequently fragmented and of poor restorative quality. Night-time awakenings may be related to substance use, withdrawal effects, or environmental instability rather than internal emotional distress. Circadian rhythm disruption is common, with delayed bedtimes, inconsistent wake times, and minimal adherence to structured daily routines. As a result, sleep deprivation may become chronic, contributing to irritability, reduced behavioural inhibition, and impaired decision-making during the day.

Subjectively, patients with antisocial personality disorder often minimise or downplay sleep-related difficulties. Sleep complaints are rarely presented spontaneously and may be framed as inconsequential or as a necessary trade-off for maintaining autonomy, excitement, or access to substances. This limited insight into the functional impact of poor sleep can hinder both assessment and engagement in treatment. Nevertheless, objective consequences of sleep deprivation, including impaired executive functioning and increased impulsivity, may further exacerbate antisocial behaviours and risk-taking.

From a clinical perspective, insomnia in antisocial personality disorder requires careful consideration of contextual and behavioural factors, particularly substance use, environmental instability, and lack of routine. Interventions focusing solely on sleep hygiene or pharmacotherapy are unlikely to be effective in the absence of broader behavioural change. Integrated approaches addressing substance misuse, impulse control, and stabilisation of daily structure are therefore essential. Emphasising the functional benefits of improved sleep, such as enhanced alertness, performance, and self-control, may increase motivation for engagement in sleep-focused interventions

Cluster C personality disorders (avoidant, dependent, anankastic)

In Cluster C personality disorders, insomnia is predominantly cognitively mediated and closely linked to anxious cognitive activation. The central pathophysiological mechanism is cognitive hyperarousal, which manifests as excessive mental activity, persistent anticipatory worry about future events, and a pronounced inability to disengage from thinking in the pre-sleep period (Harvey *et al.* 2011). Sleep is commonly perceived by these patients as a fragile and highly vulnerable process, easily disrupted by internal or external factors, and its perceived failure is often associated with serious anticipated consequences for daytime functioning. This belief system further amplifies internal tension, intensifies performance-related pressure around sleep onset, and sustains the chronicity of insomnia.

Cluster C personality disorders, including avoidant, dependent, and anankastic (obsessive–compulsive) personality disorders, are characterised by elevated anxiety, persistent anticipatory tension, a pronounced need for control, and rigid coping strategies in response to stress. These features create particularly favourable conditions for the development and maintenance of insomnia. In avoidant personality disorder, sleep disturbances are most commonly related to concerns about the upcoming day, performance demands, and fear of negative evaluation by others. In dependent personality disorder, insomnia is more often associated with separation anxiety, fears of abandonment, and an increased need for reassurance and closeness. Anankastic personality disorder is typically characterised by rigid evening routines, excessive monitoring of sleep quality, and chronic dissatisfaction with sleep, even in the absence of marked objective impairment (Ruiter *et al.* 2012).

Patients with Cluster C personality disorders and comorbid insomnia are also at increased risk of developing dependence on hypnotic medication, particularly when sleep problems are managed primarily through pharmacological means (Ruiter *et al.* 2012).

In *avoidant personality disorder*, insomnia is closely and consistently associated with anticipatory anxiety related to social interaction and performance demands. During the pre-sleep period, patients commonly engage in repetitive and intrusive rumination focused on potential evaluation by others, fears of embarrassment or rejection, work or academic performance, and the anticipated consequences of perceived failure. These cognitive processes are often accompanied by heightened emotional tension and physiological arousal, which together interfere with the natural transition from wakefulness to sleep.

As a result, prolonged sleep latency is a prominent feature, and even when sleep is eventually achieved, it is frequently experienced as superficial and non-restorative. Patients often report waking with a persistent sense of mental fatigue, reduced concentration, and diminished confidence in their ability to cope with the demands of the following day (Sansone & Sansone 2011). This daytime fatigue may further reinforce avoidance behaviour and negative self-evaluation, thereby contributing to a self-perpetuating cycle of anxiety, poor sleep, and functional impairment.

The severity of insomnia symptoms in avoidant personality disorder typically fluctuates in parallel with psychosocial stressors. Sleep disturbances intensify during periods of increased social exposure, impending performance situations, or anticipated interpersonal evaluation, such as examinations, work presentations, or social gatherings. Over time, repeated experiences of poor sleep may strengthen maladaptive beliefs about personal inadequacy and vulnerability, further maintaining both insomnia and the core psychopathology of avoidant personality disorder.

In *dependent personality disorder*, insomnia is frequently associated with separation anxiety, fear of abandonment, and heightened sensitivity to changes within close interpersonal relationships. Difficulties with sleep initiation and frequent nocturnal awakenings are particularly common in situations characterised by interpersonal uncertainty, relational conflict, or the physical absence of a significant other. Bedtime and night-time may intensify feelings of vulnerability, loneliness, and perceived lack of protection, which in turn increase emotional and physiological arousal.

From a clinical perspective, sleep in dependent personality disorder is closely tied to relational regulation of emotions. Patients often rely on proximity, reassurance, and emotional availability of attachment figures to maintain a sense of safety and calm. During the night, when direct interpersonal contact is reduced or absent, this regulatory strategy becomes less accessible, leading to increased anxiety and difficulty maintaining sleep. Night-time awakenings may be accompanied by intrusive thoughts concerning abandonment, worries about the stability of relationships, or urges to seek reassurance through contact or checking behaviours.

Subjectively, patients may report a strong need for external reassurance in order to fall asleep, such as the presence of another person, physical closeness, or ongoing communication. Sleep disturbances therefore reflect not only anxiety symptoms, but also core dependency needs and fears that become particularly salient in the absence of interpersonal cues. Over time, repeated experiences of disrupted sleep may reinforce beliefs of helplessness and reliance on others, further contributing to both chronic insomnia and the maintenance of dependent personality pathology.

In *anankastic (obsessive–compulsive) personality disorder*, perfectionism and a rigid need for control play a central role in the development and maintenance of insomnia. These traits foster excessive monitoring of sleep quality, heightened vigilance towards minor fluctuations in sleep, and catastrophic interpretations of any perceived disruption. Over time, this pattern contributes to the development of pronounced sleep-related anxiety, in which falling asleep becomes an explicit performance task rather than a spontaneous physiological process. Patients frequently describe an intense fear of the anticipated consequences of insufficient sleep, accompanied by rigid evening routines, strict self-imposed rules, and a high degree of cognitive and behavioural control, which paradoxically impairs the ability to initiate sleep.

This mechanism closely corresponds to established cognitive models of insomnia, in which sleep-related anxiety and preoccupation with sleep are considered key maintaining factors of chronic sleep disturbance (Harvey 2002). Heightened self-monitoring and attempts to control the sleep process increase cognitive arousal and prevent the natural disengagement required for sleep onset. Clinically, this results in chronic insomnia characterised by persistently prolonged sleep latency, reduced sleep efficiency, and marked subjective distress, even when objective sleep parameters are only moderately impaired.

Across Cluster C personality disorders, insomnia most commonly presents with difficulty initiating sleep, subjectively non-restorative sleep, and enduring daytime fatigue. Importantly, the core of these sleep difficulties does not primarily lie in alterations of sleep architecture, but rather in rigid cognitive and emotional responses to sleep, its expected course, and the feared consequences of its perceived failure. These maladaptive responses reinforce hyperarousal and perpetuate insomnia, underscoring the need for therapeutic approaches that specifically target sleep-related beliefs, control strategies, and anxiety-driven coping patterns.

An overview of typical insomnia patterns across personality disorder types and their clinical implications is summarised in Table 1.

Summary of types of insomnia across personality disorders

Across the spectrum of personality disorders, distinct dominant patterns of insomnia can be observed, reflecting differences in underlying personality structure, emotional regulation, cognitive style, and behavioural organisation. Rather than presenting as a single, uniform condition, insomnia in this population manifests in several characteristic forms that vary in prevalence and clinical expression across diagnostic groups.

Difficulty initiating sleep is particularly prominent in Cluster C personality disorders and in paranoid personality presentations. In these patients, prolonged sleep latency is primarily driven by heightened cognitive and emotional arousal in the pre-sleep period, including excessive worry, hypervigilance, and anticipatory anxiety. Sleep initiation becomes increasingly effortful, and repeated unsuccessful attempts to fall asleep reinforce sleep-related anxiety and maladaptive beliefs about sleep.

Fragmented sleep, characterised by frequent nocturnal awakenings and difficulty returning to sleep, is most commonly observed in borderline personality disorder, as well as in antisocial and schizotypal personality disorders. In these groups, sleep continuity is disrupted by heightened emotional reactivity, intrusive thoughts, nightmares, substance use, or environmental instability. Night-time awakenings are often accompanied by intense affective or cognitive activation, further impairing sleep restoration and contributing to daytime emotional dysregulation.

Early morning awakenings occur more frequently in the context of comorbid depressive symptomatology, which is prevalent across several personality disorder diagnoses. This pattern is associated with dysphoric mood, hopelessness, and diminished motivation, and

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Tab. 1. Insomnia patterns across DSM-5-TR personality disorder types: clinical presentation, key maintaining mechanisms, and therapeutic implications. Evidence grade reflects the depth of the empirical base as discussed in the text (see legend below).

PD Type	Cluster	Predominant insomnia symptoms	Key maintaining mechanism(s)	Core clinical implication(s)	Evidence grade
Paranoid	A	Prolonged sleep latency; light, fragmented sleep; frequent nocturnal awakenings	Hypervigilance; pervasive environmental distrust; heightened sensitivity to stimuli	Safety-focused psychoeducation; minimize sleep-environment threat appraisal	✦✧✧
Schizoid	A	Irregular sleep–wake rhythm; phase-shifted sleep; reduced subjective need for sleep; rarely self-reported	Introversion; diminished sleep-problem awareness; social withdrawal enabling rumination	Low treatment motivation; daily structure and sleep-schedule stabilization	✦✧✧
Schizotypal	A	Difficulty initiating sleep; frequent awakenings; bizarre dreams; hypnagogic/hypnopompic phenomena	Perceptual disturbances; cognitive disorganization; fear of sleep onset	Cognitive stabilization before pharmacotherapy; careful psychoeducation	✦✧✧
Borderline (BPD)	B	Combined insomnia (sleep-onset + maintenance + early awakening); nightmares; high night-to-night variability	Emotional dysregulation; interpersonal hyperreactivity; nocturnal rumination; delayed sleep phase	Routine sleep assessment; CBT-I adapted for emotional dysregulation; suicide risk monitoring	✦✦✦
Histrionic	B	Situational sleep-onset difficulties; irregular sleep–wake patterns; non-restorative sleep	Evening social/media over-engagement; emotional reactivity to interpersonal events	Psychoeducation on evening routine; reduce pre-sleep stimulation and digital media use	✦✧✧
Narcissistic	B	Prolonged sleep latency; subjectively shallow, non-restorative sleep	Performance rumination; self-esteem threat reactivity; late-evening work or stimulating activity	Address maladaptive performance standards; promote acceptance of rest as functional	✦✧✧
Antisocial	B	Highly irregular schedule; short total sleep; substance-induced disruption	Substance use; impulsivity; environmental instability; circadian dysregulation	Substance misuse intervention; behavioural structure; motivational framing (performance benefits)	✦✦✧
Avoidant	C	Prolonged sleep latency; superficial, non-restorative sleep; fluctuates with social demands	Anticipatory social anxiety; fear of negative evaluation; performance pressure about sleep	CBT-I (cognitive restructuring); address maladaptive beliefs about failure and adequacy	✦✦✧
Dependent	C	Difficulty initiating sleep; frequent nocturnal awakenings; reassurance-seeking at bedtime	Separation anxiety; relational emotion regulation; absence of attachment figure	Build internal safety resources; gradual reduction of external co-regulation needs	✦✦✧
Anankastic (OCP)	C	Chronic sleep-onset insomnia; high sleep-effort; cognitive hyperarousal; marked subjective distress despite moderate objective impairment	Perfectionism; excessive sleep monitoring; catastrophic interpretation of sleep fluctuation	Paradoxical intention; cognitive defusion from sleep-control effort; reduce evening rigidity	✦✦✧

Legend: Evidence grade reflects the breadth and methodological depth of the evidence base for each disorder, as reviewed in this article:

- ✦✦✦ **Strong** — Multiple controlled or polysomnographic studies; large clinical and epidemiological samples; longitudinal data available; objective and subjective convergence established *(applies to BPD)*
- ✦✦✧ **Moderate** — Several observational or clinical studies; consistent clinical descriptions; some objective data or replication across samples *(applies to Antisocial, Avoidant, Dependent, Anankastic)*
- ✦✧✧ **Limited** — Primarily clinical observations, case series, or inferential reasoning from adjacent constructs; direct empirical studies sparse or absent *(applies to Paranoid, Schizoid, Schizotypal, Histrionic, Narcissistic)*

Abbreviations: BPD = borderline personality disorder; CBT-I = cognitive behavioural therapy for insomnia; OCP = obsessive–compulsive (anankastic) personality disorder; PD = personality disorder.

Note: Prevalence of clinically significant insomnia in the overall personality disorder population is estimated at 40–70%, with the highest rates in BPD. Symptom patterns represent predominant clinical presentations; individual variation is substantial. Cluster A evidence should be interpreted with particular caution given its inferential basis.

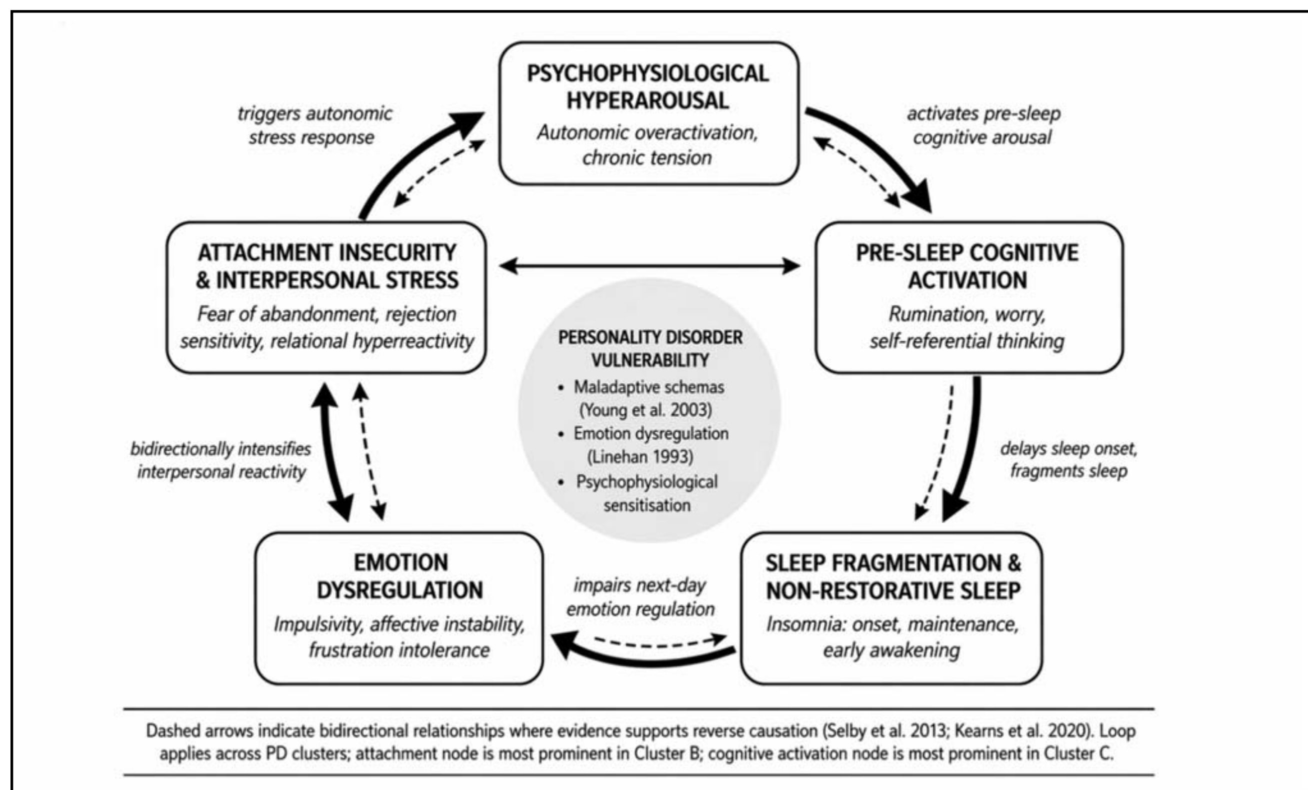

Fig. 1. The Hyperarousal–Attachment–Emotion Dysregulation Maintenance Loop in Personality Disorders.
Note. The loop illustrates how each factor maintains and amplifies the others, forming a self-sustaining cycle that perpetuates insomnia in patients with personality disorders. The central vulnerability zone reflects stable predisposing factors (maladaptive schemas, emotion dysregulation, psychophysiological sensitisation) that lower the threshold for loop activation. Arrows indicate primary directional influence; dashed bidirectional arrows reflect evidence for reverse causation (Selby *et al.* 2013; Kearns *et al.* 2020). The relative prominence of each node varies by personality disorder cluster: the **Attachment** node dominates in Cluster B (particularly BPD); the **Cognitive Activation** node dominates in Cluster C; the **Hyperarousal** node is present across all clusters but is most pronounced in paranoid and schizotypal presentations. Adapted from theoretical frameworks by Linehan (1993), Young *et al.* (2003), and Harvey (2002).

may further exacerbate fatigue, negative affect, and reduced functional capacity during the day.

Irregular sleep-wake rhythms are particularly characteristic of schizoid and antisocial personality disorders. In these patients, insomnia is less related to pre-sleep hyperarousal and more strongly influenced by disrupted circadian regulation, inconsistent daily routines, social disengagement, or lifestyle factors. Sleep timing may vary considerably from day to day, leading to chronic misalignment of biological rhythms and persistent sleep deprivation.

Across all personality disorder clusters, patients commonly report subjectively unrefreshing sleep, even when sleep duration appears sufficient. This phenomenon reflects the combined effects of fragmented sleep, heightened arousal, maladaptive cognitive interpretations of sleep quality, and ongoing emotional strain. As a result, patients often experience persistent daytime fatigue, impaired concentration, and reduced stress tolerance.

Taken together, these patterns indicate that insomnia in personality disorders represents a clinically heterogeneous phenomenon rather than a single diagnostic entity. The specific form and subjective experience of insomnia are closely linked to the patient's underlying personality organisation, dominant coping strategies, and modes of emotional and cognitive processing. Recognition of this heterogeneity is essential for accurate assessment and for the development of targeted, diagnosis-sensitive therapeutic interventions.

The relationship of insomnia to comorbidities

Insomnia in patients with personality disorders frequently occurs in the context of additional psychiatric comorbidities, which may further complicate its clinical presentation and management. The most common comorbid condition is depressive disorder, in which the presence of insomnia is associated with a more severe course of illness, prolonged recovery, and an increased risk of relapse. Evidence consistently indicates that patients with co-occurring insomnia and depression experience greater symptom severity and show a poorer response to treatment compared with those without sleep disturbance (Baglioni *et al.* 2011; Riemann *et al.* 2017).

A strong association has also been demonstrated between insomnia and anxiety disorders, particularly generalised anxiety disorder and social phobia. Height-

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ened anxiety contributes to increased cognitive and somatic arousal in the pre-sleep period, thereby facilitating the development and persistence of insomnia. This relationship is clearly bidirectional, as chronic sleep disturbance further intensifies anxiety symptoms, impairs stress tolerance, and reinforces maladaptive coping strategies (Harvey *et al.* 2011).

In a subset of patients with personality disorders, insomnia is closely linked to the use of addictive substances, most commonly alcohol and sedative medications. These substances are often employed as maladaptive strategies to induce sleep or reduce nocturnal anxiety. Although they may provide short-term relief, this form of "self-medication" typically leads to further disruption of sleep architecture, reduced sleep quality, and an increased risk of tolerance, dependence, and substance-related complications (Krystal 2012).

The association between insomnia and suicidal ideation represents a particularly important clinical concern. Meta-analyses and longitudinal studies consistently confirm that sleep disturbances constitute an independent risk factor for suicidal behaviour, even after controlling for the presence and severity of depressive symptoms. In patients with personality disorders, this relationship assumes heightened significance due to the already elevated baseline vulnerability to self-harm and suicidal behaviour within this population (Pigeon *et al.* 2012; Kearns *et al.* 2020).

Discussion

Interpretation of the main findings

The findings of this narrative review indicate that insomnia represents a highly prevalent and clinically significant problem in patients with personality disorders across all diagnostic clusters as defined by DSM-5-TR. The consistently high prevalence rates and the marked heterogeneity of clinical presentations suggest that insomnia cannot be understood merely as a non-specific accompanying symptom. Rather, it appears to constitute an integral component of the psychopathology of personality disorders, closely intertwined with their core emotional, cognitive, and interpersonal features.

One of the central explanatory mechanisms underlying insomnia in this population is chronic hyperarousal, which operates at both psychophysiological and cognitive levels. Patients with personality disorders frequently exhibit heightened autonomic reactivity, persistent muscle tension, elevated vigilance, and a reduced capacity to shift from states of activation to states of rest. These features significantly impair both sleep initiation and sleep maintenance (Harvey *et al.* 2011; Riemann *et al.* 2017). While hyperarousal is a transdiagnostic phenomenon, its dominant form varies across personality disorder subtypes. In borderline personality disorder, emotional hyperarousal and affective instability play a primary role, whereas in anankastic personality disorder cognitive hyperarousal and excessive mental control tend to predominate.

Attachment-related mechanisms represent another important explanatory framework. Insecure and disorganised attachment patterns, which are particularly prevalent in patients with borderline personality disorder, are associated with increased nocturnal activation, heightened sensitivity to separation, and pronounced difficulties in emotion regulation during periods of reduced external structure and interpersonal availability, such as the night-time hours (Zhang *et al.* 2022; Selby 2013). In this context, sleep is experienced not as a period of safety and restoration, but as a state of increased psychological vulnerability. The absence of interpersonal cues and external regulation during the night may activate attachment-related fears and intensify emotional distress, thereby disrupting sleep continuity.

Disturbances in emotional regulation constitute a further key mechanism linking insomnia and personality pathology. Patients with personality disorders often show limited capacity to modulate affective responses, disengage from ruminative thought patterns, and transition into a state of emotional calm. When sleep is impaired, these regulatory deficits are further exacerbated, leading to increased impulsivity, emotional lability, and reduced stress tolerance. This interaction creates a self-perpetuating cycle in which insomnia and the core symptoms of personality disorders mutually reinforce and intensify one another (Selby *et al.* 2013; Kearns *et al.* 2020). From a clinical perspective, this bidirectional relationship underscores the importance of viewing insomnia not only as a consequence of personality pathology, but also as a potential driver of symptom exacerbation and functional deterioration.

Comparison with existing literature

The findings of this review are largely consistent with the international literature, which has repeatedly documented a high prevalence of sleep disturbances among patients with personality disorders, with particularly robust evidence in borderline personality disorder (Semiz *et al.* 2008; Sansone & Sansone 2011). Across studies, there is broad agreement that insomnia in this population is clinically heterogeneous, encompassing difficulties with sleep initiation, disrupted sleep continuity, and subjectively non-restorative sleep. This variability mirrors the diversity of emotional, cognitive, and interpersonal dysfunctions characteristic of different personality disorder subtypes.

In contrast to earlier conceptualisations that primarily regarded insomnia as a secondary consequence of depressive or anxiety disorders, more recent research increasingly emphasises its independent and active role in the course of personality pathology. Insomnia is now viewed not merely as a by-product of emotional distress, but as a factor that can precede and contribute to symptom exacerbation, relapse,

and the emergence of crisis behaviours. Longitudinal studies suggest that sleep disturbance may function as an early indicator of clinical deterioration, particularly in patients with borderline personality disorder, rather than simply reflecting concurrent affective symptom severity (Selby 2013; Winsper *et al.* 2017).

A growing body of longitudinal and treatment-outcome research further indicates that persistent, untreated insomnia is associated with poorer response to both psychotherapeutic and pharmacological interventions. Patients who continue to experience significant sleep disturbances tend to show less improvement in key outcome domains, including emotional regulation, interpersonal functioning, and overall quality of life (Harvey *et al.* 2015; Riemann *et al.* 2017). These findings align with emerging transdiagnostic models that highlight sleep as a foundational process influencing emotional stability and therapeutic learning. Collectively, the existing literature supports the conclusion that targeted assessment and treatment of insomnia should be regarded as an essential component of comprehensive and effective care for patients with personality disorders.

Therapeutic implications

From a clinical perspective, the findings of this review have important implications for the assessment and treatment of patients with personality disorders. Most notably, they underscore the need for an active and systematic focus on sleep already in the early phases of treatment. Routine screening for insomnia should form a standard component of the initial clinical evaluation, even in cases where patients do not spontaneously identify sleep as a primary complaint. In this population, insomnia is frequently normalised, underestimated, or overshadowed by more salient emotional and interpersonal symptoms. Nevertheless, untreated sleep disturbance may substantially influence emotional stability, therapeutic engagement, and overall treatment outcome.

Cognitive behavioural therapy for insomnia (CBT-I) is widely regarded as the first-line treatment for chronic insomnia, and accumulating evidence suggests that it may also be effective in patients with personality disorders (Harvey *et al.* 2015; Riemann *et al.* 2017). Core therapeutic effects include reduction of physiological and cognitive hyperarousal, alleviation of sleep-related anxiety, and enhancement of perceived control over sleep difficulties. At the same time, certain limitations should be considered when applying CBT-I in this population. Patients with personality disorders, particularly those with borderline personality disorder, may show reduced adherence, increased sensitivity to frustration, and difficulties tolerating sleep restriction or behavioural experiments. These factors highlight the importance of flexibility, careful pacing, and an empathic therapeutic stance when implementing CBT-I techniques.

In recent years, increasing attention has been directed towards internet-based forms of CBT-I. A randomised controlled trial conducted by van Trigt *et al.* (2022) examined the effectiveness of guided internet-based CBT-I (iCBT-I) in patients diagnosed with borderline personality disorder or other personality disorders with prominent borderline features and co-occurring insomnia. The findings demonstrated that iCBT-I not only led to significant improvements in sleep, but was also associated with reductions in affective symptoms and enhanced emotional regulation. The authors propose that improved sleep may contribute to greater emotional stability and facilitate subsequent psychotherapeutic work by supporting better consolidation and internalisation of therapeutic changes. A major advantage of this approach lies in its accessibility and the possibility of implementation during waiting periods for specialised psychotherapy.

Another promising therapeutic direction involves the integration of CBT-I with schema therapy, which enables targeted work with deeper psychological processes that disrupt sleep. Interventions focused on maladaptive schemas and modes, such as the Wounded Child, Critical Parent, or Impulsive Child, can help patients better understand nocturnal rumination, self-critical inner dialogue, and emotional fluctuations that sustain hyperarousal and sleep fragmentation. Moreover, schema therapy may foster the development of the Healthy Adult mode, which supports feelings of safety, emotional soothing, and adaptive regulation in the pre-sleep period. Such integration allows sleep-focused interventions to be embedded within a broader framework addressing core personality pathology.

Pharmacotherapy retains a role in the treatment of insomnia in patients with personality disorders, but it requires heightened caution (Ruiter *et al.* 2012). Long-term use of hypnotic agents, particularly benzodiazepines and so-called Z-drugs, is associated with risks of tolerance, dependence, and paradoxical worsening of emotional regulation (Krystal, 2012). Pharmacological interventions should therefore be prescribed for limited durations, carefully monitored, and consistently combined with non-pharmacological approaches. In particular, psychotherapeutic interventions targeting sleep, emotion regulation, and maladaptive coping strategies should form the foundation of long-term management.

Limitations of the study

This review has several important limitations that should be considered when interpreting its findings. First, the present work is designed as a narrative review rather than a systematic meta-analysis. Although this approach allows for a broader integration of clinical and theoretical perspectives, it also carries a risk of selective inclusion of the literature and does not permit formal quantitative synthesis of effect sizes.

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Further limitations arise from the heterogeneity of the available studies. The reviewed literature varies considerably in terms of diagnostic approaches to personality disorders, sample characteristics, and study designs. Differences in the classification systems used, as well as in the operationalisation of personality pathology, complicate direct comparison across studies. In addition, substantial variability exists in the methods employed to assess sleep, ranging from self-report questionnaires and sleep diaries to actigraphy and polysomnography, which may contribute to inconsistencies in reported findings.

Most of the available studies are observational or retrospective in nature and frequently lack appropriate control groups. As a result, conclusions regarding causality in the relationship between insomnia and the psychopathology of personality disorders remain limited. While longitudinal associations are increasingly reported, the directionality and underlying mechanisms of these relationships cannot be definitively established on the basis of the existing evidence. These methodological constraints highlight the need for more rigorous prospective and interventional studies to further clarify the role of insomnia in the course and treatment of personality disorders.

Despite these limitations, the available evidence consistently supports the clinical relevance of insomnia as a meaningful treatment target in patients with personality disorders.

Conclusion

Insomnia represents a highly prevalent and clinically significant problem in patients with personality disorders, affecting all diagnostic clusters according to DSM-5-TR. Available evidence clearly indicates that sleep disturbances in this population are not merely secondary or marginal symptoms, but constitute an integral component of the psychopathology of personality disorders. As such, insomnia plays a meaningful role in shaping the course, stability, and long-term prognosis of these conditions.

Chronic insomnia in patients with personality disorders is associated with marked impairment in emotional regulation, increased impulsivity, and heightened interpersonal reactivity. It is also linked to a higher prevalence of depressive and anxiety symptoms, self-destructive behaviour, and suicidal ideation. Persistent sleep disturbance contributes to reduced quality of life and may negatively affect responsiveness to both psychotherapeutic and pharmacological interventions. Despite its substantial clinical relevance, insomnia in this population often remains insufficiently recognised or inadequately treated in routine practice, where management is frequently limited to symptomatic pharmacotherapy.

Targeted treatment of insomnia therefore represents an important and often underutilised therapeutic opportunity. The existing literature suggests that improvement in sleep can lead to greater emotional stability, a reduced risk of crisis states and suicidal behaviour, and an overall enhancement of therapeutic outcomes. From this perspective, sleep should be conceptualised not only as a symptom, but also as a modifiable and clinically meaningful treatment target with transdiagnostic relevance.

In clinical practice, systematic assessment of sleep quality should form a routine part of evaluation. Non-pharmacological interventions, particularly CBT-I integrated within schema therapy where appropriate, should be prioritised. Pharmacotherapy should be applied cautiously, for limited durations. Addressing sleep disturbances has the potential to significantly improve clinical stability, patient safety, and long-term therapeutic outcomes, and should therefore occupy a more central position in both clinical practice and future research.

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