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Psychological Determinants of Sleep Paralysis: A Contemporary Review of Anxiety, Stress, and Trauma

Radhakrishnan Sruthi[1], Dr .A. Seethalakshmy[2]

[1]M. Sc Applied psychology, Rathinam College of Arts and Science, Coimbatore, India*
[2]Head, Department of Psychology, Rathinam College of Arts and Science, Coimbatore, India

Abstract
Sleep paralysis is a distressing parasomnia marked by temporary immobility during sleep–wake transitions, often accompanied by intense fear and hallucinatory experiences. While traditionally explained through neurophysiological mechanisms, this contemporary review highlights the significant role of psychological factors in shaping both the onset and experience of sleep paralysis episodes. Analysis of recent literature reveals that anxiety is strongly associated with increased episode frequency, heightened fear responses, and anticipatory sleep-related distress. Chronic stress emerges as a key precipitating factor by disrupting sleep continuity and increasing vulnerability to dissociative sleep states. Trauma exposure, particularly unresolved or early-life trauma, is consistently linked to more severe subjective experiences, including vivid fear-based hallucinations, prolonged episodes, and heightened emotional distress. The combined presence of anxiety, stress, and trauma produces a cumulative effect, resulting in greater episode severity and recurrence. These findings support a biopsychosocial understanding of sleep paralysis and underscore the importance of integrating psychological and trauma-informed approaches in assessment and intervention strategies.

Keywords: Sleep paralysis, anxiety, stress, trauma, psychological factors, parasomnias

1. Introduction

Sleep paralysis is a transient parasomnia that occurs during the transition between sleep and wakefulness, characterized by temporary muscle atonia despite preserved awareness. Individuals experiencing sleep paralysis often report an inability to move or speak, accompanied by intense fear, chest pressure, and vivid auditory or visual hallucinations (Sharpless & Barber, 2011). Although episodes are usually brief and medically benign, their psychological impact can be substantial, particularly when episodes recur frequently. Many individuals develop anticipatory anxiety, sleep avoidance, and heightened emotional distress, which may further exacerbate sleep-related difficulties. From a traditional scientific perspective, sleep paralysis has been primarily explained through neurophysiological mechanisms associated with rapid eye movement (REM) sleep intrusion into wakefulness and persistence of REM-related muscle inhibition (Cheyne, 2003). While this model accounts for the physical immobility observed during episodes, it does not adequately explain individual differences in emotional intensity, hallucinatory content, or vulnerability to recurrence. Consequently,

contemporary research has shifted toward examining psychological and emotional factors that may influence both the onset and subjective experience of sleep paralysis (Sharpless et al., 2015).

Anxiety has emerged as one of the most consistently identified psychological correlates of sleep paralysis. Individuals with elevated trait anxiety, panic symptoms, or anxiety disorders report higher frequency and greater fear during episodes, suggesting that heightened arousal and threat perception may intensify the experience (Otto et al., 2006). Chronic stress similarly disrupts sleep architecture by increasing physiological activation and altering REM sleep regulation, thereby increasing susceptibility to parasomnias (Kim & Dimsdale, 2007). Stress-related sleep deprivation further compounds this vulnerability, creating conditions conducive to dissociative sleep states. Trauma represents an additional and critical factor influencing sleep paralysis experiences. Exposure to traumatic events, particularly when unresolved, has been associated with hypervigilance, intrusive imagery, and fear conditioning, all of which may manifest during sleep–wake transitions (Germain, 2013). Individuals with trauma histories often report more vivid hallucinations, prolonged episodes, and heightened emotional distress, suggesting that sleep paralysis may function as a nocturnal expression of unresolved psychological threat.

Despite increasing recognition of these associations, existing literature often examines anxiety, stress, and trauma independently. There remains a need for integrative reviews that synthesize contemporary findings within a unified psychological framework. This review addresses this gap by critically examining the collective role of anxiety, stress, and trauma in shaping the onset and experiential characteristics of sleep paralysis, emphasizing a biopsychosocial understanding of this complex phenomenon.

2. Methodology

2.1 Research Design

This study employed a **contemporary narrative review design** to synthesize recent literature examining the role of anxiety, stress, and trauma in the onset and experience of sleep paralysis episodes.

2.2 Data Sources and Search Strategy

Relevant studies were identified through Google Scholar, PubMed, Scopus, PsycINFO, and ResearchGate. A keyword-based search was conducted using terms such as *sleep paralysis*, *anxiety*, *stress*, *psychological trauma*, and *parasomnias*. Only English-language articles published between **2010 and 2025** were considered.

2.2.1 Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
Peer-reviewed studies on sleep paralysis	Purely neurological or genetic studies
Research linking anxiety, stress, or trauma	Non-English publications
Empirical and theoretical psychological studies	Opinion pieces and case anecdotes
Adolescent and adult populations	Unrelated parasomnias

2.3 Data Analysis

Selected studies were reviewed and thematically analyzed to identify patterns related to anxiety, stress, and trauma and their influence on sleep paralysis experiences.

3. Results

The findings of this contemporary review were organized into three major thematic areas: anxiety, stress, and trauma, based on consistent patterns observed across the reviewed literature.

3.1 Anxiety and Sleep Paralysis Episodes

Table 1: Relationship Between Anxiety and Sleep Paralysis

Aspect	Findings
Episode frequency	Higher among individuals with elevated anxiety
Emotional response	Intense fear, panic, and helplessness
Anticipatory anxiety	Fear of recurrence before sleep
Sleep behavior	Increased sleep avoidance and hypervigilance

The findings indicate that anxiety plays a significant role in both triggering and intensifying sleep paralysis episodes. Elevated anxiety levels increase physiological arousal and threat perception, making individuals more vulnerable to sleep–wake dissociation. Anticipatory anxiety further reinforces a cycle of sleep avoidance, which may increase episode recurrence and emotional distress.

3.2 Stress as a Precipitating Factor

Table 2: Impact of Stress on Sleep Paralysis Episodes

Stress-Related Factor	Findings
Chronic psychological stress	Increased frequency of episodes
Sleep disruption	Irregular sleep patterns and deprivation
Lifestyle stressors	Occupational and academic stress commonly reported
Emotional regulation	Reduced coping capacity during episodes

The reviewed studies suggest that chronic stress acts as a precipitating factor by disrupting sleep continuity and REM regulation. Prolonged stress exposure heightens physiological activation and reduces emotional regulation, thereby increasing susceptibility to sleep paralysis. Stress-related sleep deprivation further contributes to the onset of episodes.

3.3 Trauma and Experiential Severity of Sleep Paralysis

Table 3: Trauma and Subjective Experience of Sleep Paralysis

Trauma-Related Aspect	Findings
Hallucinatory content	Vivid and fear-based imagery
Episode duration	Longer and more intense episodes
Emotional distress	Severe fear, helplessness, and panic
Recurrence	Higher likelihood of repeated episodes

Trauma exposure, particularly unresolved or early-life trauma, was strongly associated with increased severity of sleep paralysis experiences. Trauma-related hypervigilance and intrusive imagery appear to influence hallucinatory content and emotional intensity during episodes. These findings suggest that sleep paralysis may function as a nocturnal expression of unresolved psychological threat.

3.4 Integrated Psychological Findings

Table 4: Combined Influence of Anxiety, Stress, and Trauma

Psychological Factors	Observed Outcome
Anxiety and Stress	Increased episode frequency
Stress and Trauma	Heightened emotional distress
Anxiety and Trauma	Intensified fear and hallucinations
Anxiety, Stress, and Trauma	Highest severity and recurrence

The interaction of anxiety, stress, and trauma produces a cumulative effect, significantly increasing both vulnerabilities to sleep paralysis and the intensity of subjective experiences. These findings support a biopsychosocial understanding of sleep paralysis, emphasizing the need for integrated psychological assessment and intervention.

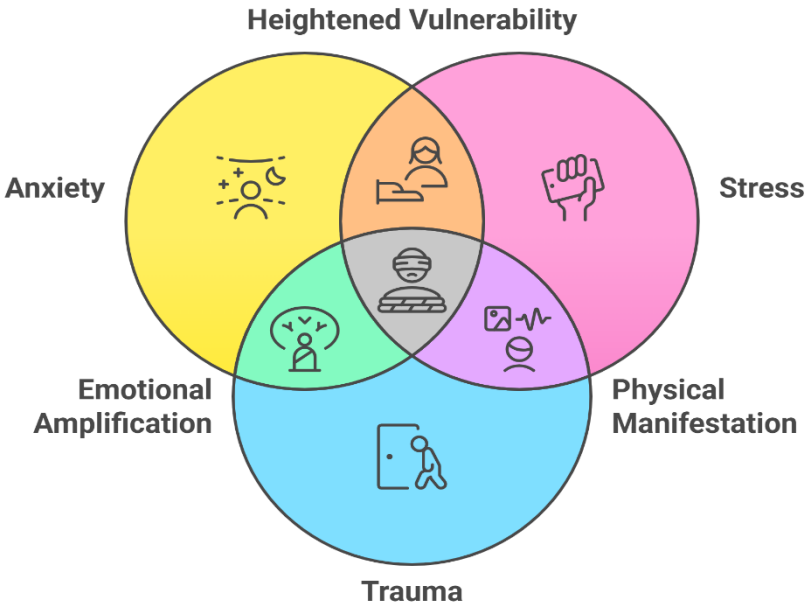

Figure 1 represents Integrated Model of Anxiety, Stress, and Trauma in Sleep Paralysis Experiences

4. Discussion

The findings of this contemporary review demonstrate that anxiety, stress, and trauma significantly influence both the onset and experiential severity of sleep paralysis episodes. As reflected in Table 1, anxiety consistently emerged as a central psychological correlate, affecting episode frequency, emotional intensity, and anticipatory fear. Individuals with heightened anxiety exhibit increased physiological arousal and threat perception, which intensify fear responses during episodes and reinforce maladaptive sleep behaviors such as sleep avoidance (Sharpless & Barber, 2011; Otto et al., 2006). The role of stress, summarized in Table 2, indicates that chronic psychological stress acts as a major precipitating factor. Stress-related dysregulation of sleep architecture, particularly REM sleep, increases vulnerability to parasomnias by promoting sleep fragmentation and dissociative sleep–wake transitions (Kim & Dimsdale, 2007). Prolonged exposure to occupational, academic, or emotional stress further amplifies this vulnerability by impairing emotional regulation and coping capacity.

Findings related to trauma, presented in Table 3, suggest that trauma exposure strongly influences the qualitative experience of sleep paralysis. Individuals with unresolved or early-life trauma reported more vivid hallucinations, prolonged immobility, and intense emotional distress. Trauma-related hypervigilance and intrusive imagery may manifest during sleep–wake transitions, intensifying fear-based hallucinatory content (Germain, 2013; Sharpless et al., 2015). The integrated findings in Table 4 demonstrate that anxiety, stress, and trauma interact cumulatively rather than independently. Their combined presence produces the highest levels of episode severity and recurrence. This interaction supports a biopsychosocial model of sleep paralysis, emphasizing psychological vulnerability alongside neurophysiological mechanisms (Cheyne, 2003; Sharpless et al., 2015).

5. Conclusion

This contemporary review concludes that sleep paralysis is not solely a neurophysiological phenomenon but a psychologically mediated experience shaped by anxiety, stress, and trauma. Elevated anxiety increases fear and anticipatory distress, chronic stress disrupts sleep regulation, and trauma intensifies hallucinatory and emotional components of episodes. The interaction of these factors significantly heightens vulnerability and distress, underscoring the importance of adopting a biopsychosocial framework for understanding sleep paralysis.

6. Implications

- Psychological screening for anxiety, stress, and trauma should be incorporated when assessing individuals experiencing recurrent sleep paralysis.
- Trauma-informed and cognitive-behavioral approaches may help reduce fear, emotional distress, and episode recurrence.
- Mental health professionals should integrate sleep education with emotional regulation strategies to improve outcomes.
- Future research should adopt interdisciplinary approaches combining sleep science and psychology to strengthen evidence-based interventions.

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