



ASSESSMENT OF NIGHT TERRORS AND ASSOCIATED SLEEP DISTURBANCES AMONG YOUNG ADULT FEMALES AGED 18-23 YEARS: A CROSS-SECTIONAL QUESTIONNAIRE BASED STUDY

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ABSTRACT

Background: Night terrors (sleep terrors) are parasomnias characterized by sudden episodes of fear, confusion, and autonomic arousal occurring during deep non-rapid eye movement (NREM) sleep. Although they are more common in children, persistent night terrors in adults can negatively affect sleep quality, psychological well-being, and daily functioning. **Objective:** This study aimed to evaluate the prevalence of symptoms associated with night terrors, identify related psychological and lifestyle risk factors, and assess their impact among young adult female participants. **Methods:** A cross-sectional questionnaire-based study was conducted among 30 female participants aged 18–23 years who voluntarily participated after providing informed verbal consent. Data were collected using a structured 30-item questionnaire assessing sleep patterns, nocturnal symptoms, psychological status, lifestyle habits, and factors influencing sleep quality. Descriptive statistics were used to summarize the responses, and findings were expressed as frequencies and percentages. **Results:** The study revealed a high prevalence of sleep-related disturbances among the participants. Commonly reported symptoms included sudden awakening with confusion, disturbed sleep, waking up feeling unrefreshed, episodes of night terrors, nighttime panic, screaming during sleep, and racing thoughts. Psychological factors such as stress, excessive worrying, and emotional suppression were frequently observed. Lifestyle habits including evening caffeine consumption, daytime napping, frequent junk food intake, and late bedtimes were also

common and appeared to be associated with poor sleep quality. **Conclusion:** Night terrors and related sleep disturbances were highly prevalent in this study population and appeared to be influenced by psychological stress and modifiable lifestyle factors. Improving sleep hygiene, promoting stress management, and increasing awareness of sleep disorders may help reduce these disturbances. Further studies involving larger and more diverse populations with objective sleep assessments are recommended to validate these findings.

KEYPOINTS: Night terrors, sleep terrors, parasomnia, screaming during sleep, sleep quality, sleep disorders.

INTRODUCTION

Night terrors, also known as sleep terrors, are a form of parasomnia characterized by sudden episodes of intense fear, screaming, autonomic activation, and confusion that occur during deep non-rapid eye movement (NREM) sleep. Unlike nightmares, which occur during rapid eye movement (REM) sleep and are often remembered upon awakening, individuals experiencing night terrors are typically difficult to awaken and usually have little or no recollection of the episode the following morning. These episodes most commonly occur during the first third of the night when slow-wave sleep predominates and are observed more frequently in children than in adults. Although the condition is generally self-limiting during childhood, persistent night terrors in adolescents and adults may significantly impair sleep quality, emotional well-being, social functioning, and overall quality of life (Ohayon et al., 1999; Sateia, 2014). The etiology of night terrors is complex and multifactorial, involving incomplete arousal from deep sleep and dysregulation of normal sleep-wake transitions. Several predisposing and precipitating factors have been associated with the occurrence of night terrors, including sleep deprivation, psychological stress, anxiety, fever, certain medications, genetic susceptibility, and coexisting sleep disorders such as obstructive sleep apnea. While night terrors are generally considered benign, recurrent episodes may increase the risk of accidental injury and psychological distress, emphasizing the importance of early recognition and appropriate clinical assessment (Pressman, 2007; Stallman & Kohler, 2016). This research paper evaluates night terrors using a questionnaire-based survey designed to collect data on the prevalence, symptoms, associated risk factors, and the impact of night terrors among the study participants.

METHODOLOGY

Study Population: The study included 30 female participants aged between 18 and 23 years who voluntarily agreed to participate. The purpose of the study was explained to all participants, and informed verbal consent was obtained before data collection.

Study Instrument: Data were collected using a structured questionnaire consisting of 30 items designed to assess symptoms and factors associated with night terrors and sleep disturbances. The questionnaire included questions related to sleep patterns, episodes of nighttime awakening, emotional status, anxiety, stress, racing thoughts, dream recall, mood changes, use of electronic gadgets before bedtime, lifestyle habits, caffeine consumption, daytime napping, dietary habits, and other factors that may influence sleep quality.

Data Collection Procedure: Participants completed the questionnaire individually in a confidential setting. Responses were recorded and compiled for analysis. Descriptive statistics were used to summarize the data, and the frequency and percentage of each response were calculated to determine the prevalence of symptoms and associated risk factors among the participants.

The inclusion criteria consisted of female students between the ages of 18 and 23 years who were willing to participate and provided verbal informed consent. Participants who were unwilling to participate, did not provide consent, or were uncooperative during data collection were excluded from the study. Confidentiality and anonymity of all participants were maintained throughout the study. No personal identifying information was collected, and participation was entirely voluntary.

RESULT

The study revealed a high prevalence of sleep-related disturbances accompanied by significant psychological, physical, and lifestyle related factors among the participants. Nighttime symptoms were particularly common, with 90% of participants reporting waking up suddenly feeling confused. Other frequently reported disturbances included night terrors occurring more than once in the past month (73.33%), episodes of unexplained nighttime panic (70%), and screaming or shouting during sleep (66.66%). These findings suggest that nocturnal sleep disturbances are widespread within the study population.

Table 1

S.NO	CONTENET	YES(%)	NO(%)
1	Wakeup suddenly at night feeling confused.	90 %	10%
2	Scream or shout during sleep.	66.66 %	33.33 %
3	Wakeup without remembering the dreams.	56.66 %	43.33 %
4	Night time panic without any clear reason.	70 %	30 %
5	Physically agitated after waking from sleep.	46.66 %	53.33 %
6	Frequent episode of disturbed sleep.	76.66 %	23.33 %
7	Wakeup tired even after a full night sleep.	83.33 %	16.66 %
8	Avoid sleeping alone	33.33 %	66.66 %
9	Night terror more than once in a past month	73.33 %	26.66 %
10	Night episodes ever disturbed daily functioning	26.66 %	73.33 %
11	Feel emotionally overwhelmed	46.66 %	53.33 %
12	Suppress the emotion	80 %	20 %
13	Feel excessively anxious	40 %	60 %
14	Recently experienced major life stress	80 %	20 %
15	Mentally exhausted	56.66 %	43.33 %
16	Mind having racing thoughts	90 %	10 %
17	Worried about small issues	80 %	20 %
18	Went to bed at late night	56.66 %	43.33 %

19	Used electronic gadgets in bed before sleep	26.66 %	73.33 %
20	Habit of tea or coffee at evening	63.33 %	36.66 %
21	Habit of day time nap	63.33 %	36.66 %
22	Consumed junk food more than twice a week.	66.66 %	33.33 %
23	Frequent headache	53.33 %	46.66 %
24	Neck and shoulder stiffness	73.33 %	26.66 %
25	Dizziness when lying down to sleep.	33.33 %	66.66 %
26	Episodes of sleep paralysis	43.33 %	56.66 %
27	Past traumatic event still causing distress.	63.33 %	26.66 %
28	Palpitations during sleep	43.33 %	56.66 %
29	Profuse sweating during sleep	46.66 %	53.33 %
30	Rapid breathing during sleep	36.66 %	63.33 %

Table 1 shows, Night terrors age group 18-23 Years

Sleep quality was markedly affected, as 76.66% of participants experienced frequent disturbed sleep, while 83.33% reported waking up feeling tired despite a full night's sleep. More than half (56.66%) also reported not remembering their dreams upon awakening, indicating poor restorative sleep. Psychological symptoms were highly prevalent, with 90% experiencing racing thoughts, and 80% reporting suppressed emotions, recent major life stress, and excessive worrying. These findings highlight the close association between emotional distress and sleep disturbances.

Participants also experienced several physical symptoms, including neck and shoulder stiffness (73.33%), headaches (53.33%), excessive sweating (46.66%), palpitations during sleep (43.33%), and rapid breathing during sleep (36.66%), suggesting that sleep disturbances may be associated with increased physiological arousal. Lifestyle factors that may contribute to poor sleep include evening tea or coffee consumption (63.33%), daytime napping (63.33%), frequent junk food intake (66.66%), and late bedtimes (56.66%). Despite the high prevalence of these symptoms, only 26.66% of participants reported that the disturbances significantly affected their daily functioning, indicating that many individuals may underestimate the impact of chronic sleep disturbances on their overall health and well-being.

DISCUSSION

The study revealed a high prevalence of sleep-related disturbances among the participants, indicating that disrupted sleep and associated psychological and physiological symptoms are common within the study population. A substantial proportion of participants reported experiencing various parasomnia-like symptoms and nocturnal disturbances. The most frequently reported symptom was waking up suddenly feeling confused or disoriented during the night (90%), suggesting a high occurrence of episodes of incomplete arousal from sleep. Similarly, 66.66% of participants reported screaming or shouting during sleep, while 73.33% experienced night terrors more than once during the past month. Furthermore, 70% reported episodes of sudden nighttime panic without any identifiable trigger. These findings indicate that

many participants experience significant disturbances during sleep, which may reflect heightened nocturnal arousal and alterations in normal sleep architecture.

Sleep quality was also found to be markedly impaired. More than three-quarters of the participants (76.66%) reported frequent episodes of disturbed sleep, while an even higher percentage (83.33%) stated that they woke up feeling tired despite obtaining what they considered to be a full night's sleep. This suggests poor restorative sleep and possible reductions in sleep efficiency. Additionally, 56.66% reported that they rarely or never remembered their dreams upon awakening, which may reflect fragmented sleep or disruptions in normal REM sleep processes. Collectively, these findings indicate that poor sleep quality is highly prevalent among the participants and may contribute to reduced overall well-being.

Psychological and emotional symptoms were also highly prevalent in the study population. Racing thoughts were reported by 90% of participants, making it one of the most common psychological complaints identified. A large majority also reported suppressing their emotions (80%), experiencing significant life stress in the recent past (80%), and excessive worrying (80%). These findings suggest a strong relationship between emotional distress and sleep disturbances. Chronic stress, anxiety, and unresolved emotional conflicts are well-established contributors to hyperarousal, which interferes with the initiation and maintenance of sleep and increases the likelihood of nocturnal awakenings and parasomnia-like behaviors. The coexistence of multiple psychological symptoms further indicates that emotional health may play a significant role in the occurrence and persistence of sleep disturbances. In addition to psychological symptoms, participants reported a considerable burden of physical and physiological complaints. Neck and shoulder stiffness was reported by 73.33% of participants, suggesting persistent muscular tension that may be associated with stress or poor sleep posture. Frequent headaches were experienced by 53.33%, while cardiovascular and autonomic symptoms such as palpitations during sleep (43.33%), excessive sweating (46.66%), and rapid breathing during sleep (36.66%) were also commonly reported. These physiological manifestations may reflect activation of the sympathetic nervous system during sleep and could be associated with anxiety-related nocturnal episodes or poor sleep quality. The coexistence of these symptoms emphasizes the multidimensional impact of sleep disturbances on both physical and mental health.

The study also identified several lifestyle-related behaviors that may contribute to poor sleep quality. Evening consumption of tea or coffee was reported by 63.33% of participants, which may delay sleep onset due to the stimulating effects of caffeine. Similarly, 63.33% reported taking daytime naps, a habit that can reduce sleep pressure and interfere with nighttime sleep when prolonged or taken late in the day. Frequent consumption of junk food was reported by 66.66% of participants, suggesting dietary habits that may negatively affect sleep through metabolic and inflammatory pathways. Additionally, more than half of the participants (56.66%) reported going to bed late, indicating irregular sleep schedules that may disrupt circadian rhythms and contribute to insufficient or poor-quality sleep. These lifestyle factors likely interact with psychological stress to further increase the risk of sleep disturbances. Despite the high prevalence of sleep-related symptoms, only 26.66% of participants reported that these nighttime episodes significantly affected their daytime functioning. This finding suggests that many individuals may normalize their symptoms or adapt to chronic sleep disturbances without recognizing their potential impact on daily performance, cognitive functioning, emotional regulation, and overall quality of life. It is also possible that participants underestimated the consequences of their sleep problems due to gradual adaptation or limited awareness of the relationship between sleep quality and daytime health outcomes.

CONCLUSION

The findings of this study indicate that sleep-related disturbances, including symptoms associated with night terrors, are highly prevalent among female participants aged 18-23 years. A large proportion of participants reported nocturnal symptoms such as sudden awakenings with confusion, episodes of night terrors, nighttime panic, and screaming during sleep. Poor sleep quality was also common, with many participants experiencing frequent sleep disturbances and waking up feeling unrefreshed despite an adequate duration of sleep. High levels of psychological stress, anxiety, racing thoughts, and emotional suppression, together with lifestyle factors such as caffeine consumption, irregular sleep schedules, daytime napping, and frequent junk food intake, were commonly observed and may contribute to the

occurrence of these sleep disturbances. The results suggest that night terrors and related sleep disturbances are influenced by multiple interacting psychological, physiological, and lifestyle factors rather than a single cause. Although only a minority of participants perceived a significant impact on their daytime functioning, the high prevalence of symptoms highlights the need for greater awareness regarding the importance of healthy sleep habits and the early recognition of sleep disorders. Addressing modifiable risk factors through stress management, improved sleep hygiene, and healthy lifestyle practices may help reduce the frequency and severity of these disturbances. Future research should include larger and more diverse samples, standardized diagnostic tools, and objective sleep assessments to better understand the prevalence, determinants, and long-term consequences of night terrors.

REFERENCE

1. Maurice M. Ohayon, Christian Guilleminault, and Robert G. Priest. 1999. Night Terrors, Sleepwalking, and Confusional Arousals in the General Population: Their Frequency and Relationship to Other Sleep and Mental Disorders. *Journal of Clinical Psychiatry*, 268–276.
2. Mark R Pressman. 2007. Disorders of Arousal From Sleep and Violent Behavior: The Role of Physical Contact and Proximity. 30(8):1039–1047.
3. Michael J Sateia (2014). *International Classification of Sleep Disorders—Third Edition*. Chest, 146(5), 1387–1394.
4. Helen M. Stallman, Mark Kohler. (2016). Prevalence of sleepwalking: A systematic review and meta-analysis. *PLOS ONE*, 11(11), e0164769.
5. Helen M Stallman. 2017. Assessment and treatment of sleepwalking in clinical practice. Volume 46, Issue 8, August 2017.
6. Alexander KC Leung, Amy AM Leung, Alex HC Wong, Kam Lun Hon. 2020. Sleep Terrors: An Updated Review. 16(3):176–182.
7. Kathryn Moffett. 2006. Case in Point: Night Terrors. Volume 5, Issue 10.
8. Anna Castelnovo, Giuseppe Loddo, Federica Provini, Silvia Miano, Mauro Manconi. 2021. Mental Activity During Episodes of Sleepwalking, Night Terrors or Confusional Arousals: Differences Between Children and Adults. Volume 2021:13 Pages 829—840.
9. Patrick Simon Moffett Levy. 2022. Terror at the Heart of Sleep – Night Terrors, Nancy, and Phenomenology. Volume 9, 2022 - Issue 1. Pages 47-63.
10. Dominique Petit, Marie-Hélène Pennestri, Jean Paquet. 2015. Childhood Sleepwalking and Sleep Terrors. A Longitudinal Study of Prevalence and Familial Aggregation. 169;(7):653-658.