

Relationship Between Stress and Sleep Disturbances in Young Adults: A Case Study

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Abstract

Sleep disturbances are prevalent among young adults, particularly those experiencing high levels of stress due to academic pressures, social dynamics, and personal challenges. Poor sleep quality can significantly impact cognitive functioning, mood, and overall well-being. This study examines the effects of stress-induced sleep disturbances in an 18-year-old female college student, referred to as "Sarah" for privacy. Over the past two months, Sarah has experienced difficulty falling asleep, frequent nocturnal awakenings, daytime fatigue, and heightened anxiety, which have negatively affected her academic performance and social interactions.

Using structured assessment tools such as the Sleep Disturbance Questionnaire and the Perceived Stress Scale (PSS), this study evaluates the severity of Sarah's sleep disturbances and their correlation with stress levels. Findings indicate that high stress levels significantly contribute to her disrupted sleep patterns. This study highlights the importance of stress management techniques, sleep hygiene improvements, and cognitive-behavioral interventions in mitigating the negative impact of stress on sleep quality.

Keywords: Sleep disturbances, stress, anxiety, sleep hygiene, cognitive functioning

Introduction

Sleep disturbances include difficulties in initiating and maintaining sleep, frequent nighttime awakenings, and non-restorative sleep. Young adults, particularly college students, are highly susceptible to sleep disturbances due to academic stress, social interactions, and personal expectations. Poor sleep can lead to emotional instability, cognitive impairments, and diminished quality of life (Beattie et al., 2015). This research explores the relationship between stress and sleep disturbances through a case study of Sarah, an 18-year-old female college

student. The study aims to assess the severity of her condition and recommend suitable interventions to improve sleep quality.

Case Background

- **Name:** Sarah (pseudonym)
- **Age:** 18 years
- **Gender:** Female
- **Occupation:** College Student
- **Presenting Issues:** Sleep disturbances, daytime fatigue, difficulty concentrating, irritability, and emotional distress
- **Family History:** No significant history of sleep disorders, though some family members have reported stress-related sleep issues
- **Social Background:** Resides in a shared apartment with two other students and maintains regular contact with her family. Has a moderate social circle

Sarah has been experiencing disrupted sleep patterns for approximately two months, with symptoms worsening in recent weeks. Her sleep disturbances are directly linked to academic stress, social pressure, and personal expectations.

Presenting Concerns

Sarah reported the following concerns during counseling sessions:

1. **Difficulty Falling Asleep:** Takes more than an hour to initiate sleep.
2. **Frequent Nocturnal Awakenings:** Wakes up multiple times per night, sometimes remaining awake for extended periods.
3. **Daytime Fatigue:** Experiences persistent tiredness despite spending 7–8 hours in bed.
4. **Irritability:** Increased frustration and emotional instability, especially in social settings.
5. **Heightened Anxiety and Stress:** Academic pressures and interpersonal conflicts contribute to sleep difficulties.

Sarah's sleep disturbances have negatively impacted her academic performance, concentration, and social relationships, leading to emotional exhaustion.

Assessment of Sleep Disturbances and Stress

To evaluate Sarah's condition, two standardized assessment tools were used: the Sleep Disturbance Questionnaire and the Perceived Stress Scale (PSS).

1. Sleep Disturbance Questionnaire

This tool evaluates the severity and frequency of sleep disturbances. Sarah's responses indicated:

- **Difficulty Falling Asleep:** Frequently takes over an hour to fall asleep.
- **Frequent Night Wakings:** Wakes up at least twice a night and struggles to return to sleep.
- **Daytime Sleepiness:** Reports excessive daytime fatigue, particularly in the afternoon.
- **Non-Restorative Sleep:** Despite spending sufficient time in bed, she wakes up feeling unrefreshed.

2. Perceived Stress Scale (PSS)

The PSS measures perceived stress levels in daily life. Sarah's responses suggest:

- **Frequent Anxiety:** She often feels overwhelmed by academic responsibilities.
- **Lack of Control:** She perceives little control over her circumstances.
- **Excessive Worrying:** She ruminates about academic performance, leading to difficulty relaxing.

Sarah's PSS score indicated moderate to high stress levels, contributing significantly to her sleep disturbances.

Analysis

The assessment findings reveal several key factors contributing to Sarah's sleep disturbances:

1. **Academic Stress:** Heavy workload and exam pressures disrupt her sleep cycle.
2. **Anxiety and Rumination:** Persistent thoughts about academic performance delay sleep onset.
3. **Emotional Stress:** Conflicts with family and friends exacerbate her sleep issues.

4. **Poor Sleep Hygiene:** Excessive screen time at night and caffeine intake negatively affect sleep quality.
5. **Non-Restorative Sleep:** Frequent awakenings prevent deep, restful sleep.

Interventions and Recommendations

Based on the analysis, the following interventions are recommended:

1. Cognitive Behavioral Therapy for Insomnia (CBT-I)

- **Stimulus Control:** Restrict bed usage to sleep only (no studying, eating, or screen use in bed).
- **Sleep Restriction:** Initially reduce time in bed to improve sleep efficiency.
- **Cognitive Restructuring:** Address negative thoughts about sleep and academic worries.

2. Stress Management Techniques

- **Mindfulness Meditation:** Enhances relaxation and reduces anxiety.
- **Breathing Exercises:** Progressive muscle relaxation and deep breathing before bedtime.
- **Time Management:** Structured academic planning to reduce last-minute stress.

3. Sleep Hygiene Education

- **Consistent Sleep Schedule:** Maintain fixed sleep and wake times daily.
- **Avoid Stimulants:** Reduce caffeine and screen exposure before bedtime.
- **Relaxing Bedtime Routine:** Engage in calming activities such as reading or taking a warm bath.

4. Physical Activity

Regular physical activity, including yoga or evening walks, can help alleviate stress and improve sleep quality.

5. Supportive Counseling

Individual counseling sessions to address academic pressures, interpersonal conflicts, and effective coping mechanisms.

Conclusion

This case study highlights the significant impact of stress on sleep quality in young adults. Sarah's academic and emotional stressors contribute to her sleep disturbances, which in turn affect her overall functioning. Implementing CBT-I, stress management techniques, and sleep hygiene improvements can help break this cycle and promote healthier sleep patterns. A multidisciplinary approach that combines psychological interventions and lifestyle modifications is essential for long-term improvement.

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