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# Exploring the Association between Anxiety Levels and Sleep Quality among Young Adults

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**Abstract:** This study examines the association between anxiety levels and sleep quality in young adults, focusing on their bidirectional relationship and implications for mental health interventions. **Materials and Methods:** Twenty young adults aged 18-25 were recruited from various sources. Anxiety levels, assessed using the Spielberger State-Trait Anxiety Inventory (STAI), were categorized as high or low, and sleep quality was classified as good or poor. Data were analysed using a chi-square test ($\alpha = 0.05$). **Results:** Chi-square analysis ($\chi^2 = 8.8$, do = 1, $p < 0.05$) showed a significant association between high anxiety levels and poor sleep quality, with low anxiety levels linked to good sleep. **Conclusion:** A strong relationship exists between anxiety and sleep quality in young adults. Addressing anxiety through interventions like CBT-mindfulness, relaxation techniques, and I can improve sleep and mental health. Further research is needed to explore underlying mechanisms and long-term outcomes.

**Introduction.** Anxiety causes significant mental health problems, especially in young adults, affecting their overall well-being, functioning, and quality of life Anxiety manifests in a variety of ways from generalized anxiety disorders to phobias and social anxiety, most commonly in adolescence. Sleep quality is incredibly linked to mental health, with poor sleep patterns often exacerbating anxiety symptoms and vice versa. Research suggests a bidirectional relationship between anxiety and sleep, where high levels of anxiety can cause sleep disturbances, and inadequate or poor-quality sleep can exacerbate anxiety symptoms The Spielberger-State Symptom Anxiety Inventory (STAI) is a widely used instrument for measuring anxiety levels, capturing both short-term and permanent anxiety symptoms . The aim of this study was to examine the association between anxiety levels and sleep quality in adolescents using chi-square analysis. By segmenting participants based on their anxiety levels and sleep quality, we seek to clarify the relationship between these variables and identify possible recruitment strategies involved in the. Understanding the complex interplay between anxiety and sleep quality is essential to improving the mental health and well-being of young people.

**Methodology.** Participants: The survey recruited young people aged between 18 and 25 From the students of Tashkent Medical Academy of international faculty via online forums. The final sample size consisted of 20 participants, reflecting a diversity of backgrounds and experiences. scale: Level of anxiety: Participants completed the Spielberger State Trait Anxiety Inventory (STAI), a validated self-report measure with 20 items measuring state anxiety (momentary anxiety sensitivity) and trait anxiety (anxiety. general experiences and traits) designed as

measure scores for each subscale on the STAI range from 20 to 80, with higher scores indicating greater anxiety.

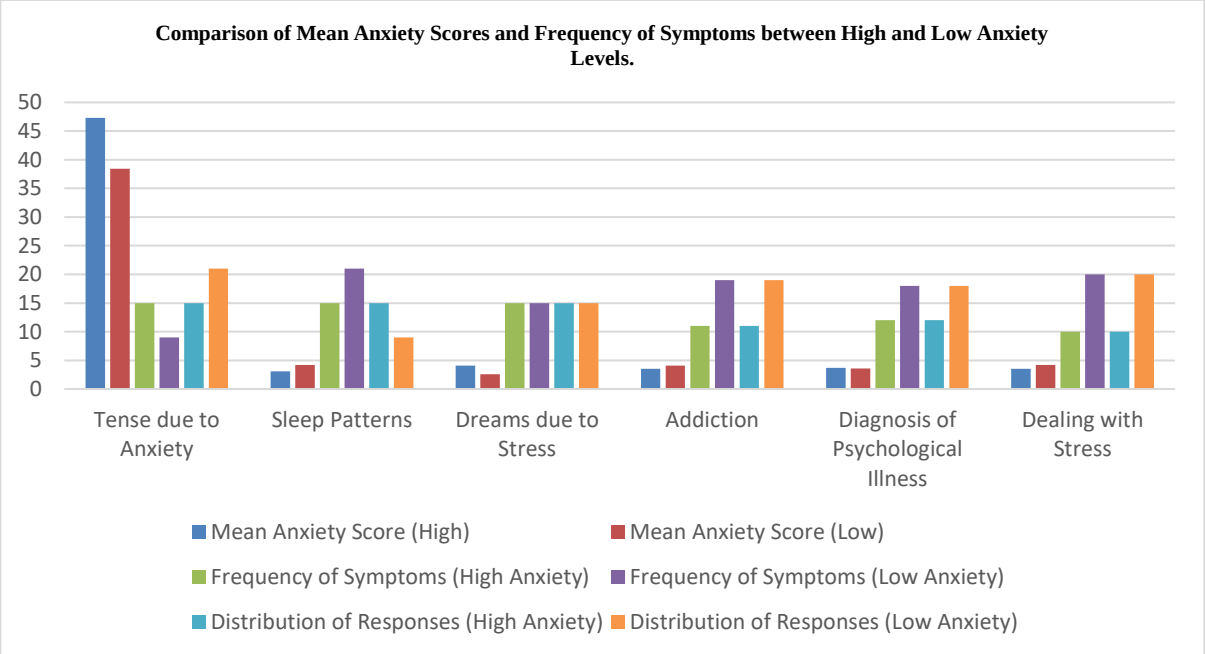
Good sleep: Good sleep was measured with a single self-report measure, in which participants rated their sleep on a scale from "bad" to "good gave about the participants' days and experiences. approach: Recruitment: Potential participants were recruited through a variety of methods, including mailings, social media platforms, and word of mouth. Individuals willing to participate were provided with detailed information regarding the purpose of the study, procedures, and confidentiality provisions. Data collection: Participants completed the STAI questionnaire and sleep quality survey during a single data collection session based on voluntary and scheduling availability. Trained research assistants were available to identify questions or concerns raised by participants during the data collection process. Data analysis: Data were analysed using the chi-square test to examine the association between anxiety levels (classified as high or low based on STAI scores) and sleep quality (classified as moderate). positive or negative based on self-report) Observed and expected frequencies by chi-square analysis The comparison allowed to determine if there was a significant relationship between the variables of interest.

**Statistical analysis**: Chi-square analysis Chi-square statistics, degrees of freedom, and associated p-values were calculated using statistical software (e.g., jasp ,). is $\alpha = 0.05$, which statistically results in a p-value less than 0.05 Indicates that it is considered significant. This approach facilitated the investigation of the relationship between anxiety levels and sleep quality in young people, providing valuable insights into the interactions of these factors and their implications for mental health and well-being, help of ai taken for text generation with all text has been thoroughly reviewed and edited to ensure accuracy.
**Results:** The chi-square analysis revealed a significant association between anxiety levels and sleep quality among the young adult participants ($\chi^2 = 8.8$, df = 1, $p < 0.05$). Specifically, participants with high anxiety levels were more likely to report poor sleep quality compared to those with low anxiety levels.

**Table1. Observed and Expected Frequencies of Anxiety Levels and Sleep Quality**.

| | Good Sleep | Poor Sleep | Total |
|---|---|---|---|
| High Anxiety | 1 | 9 | 10 |
| Low Anxiety | 9 | 1 | 10 |
| Total | 10 | 10 | 20 |
| | | | |
| Expected Frequencies (assuming independence): | | | |
| | | | |
| | Good Sleep | Poor Sleep | |
| High Anxiety | 5 | 5 | |
| Low Anxiety | 5 | 5 | |

**Image.1 Comparison of Mean Anxiety Scores and Frequency of Symptoms between High and Low Anxiety Levels**




Participants with high levels of anxiety had significantly higher frequencies of negative sleep experiences than expected, suggesting a strong relationship between these variables Conversely, participants with lower levels of anxiety had significantly lower frequencies of perceived quality sleep These findings suggest that anxiety levels play an important role in determining quality sleep in young adults, highlighting the importance of addressing anxiety symptoms in interventions that they aims to improve overall sexual health and well-being with emphasis. Further research is needed to investigate underlying mechanisms and potential interventions to prevent anxiety-related sleep disorders in this population.

**Discussion:** The significant association found between anxiety levels and sleep quality in young adults highlights the complex links between mental health and sleep. These findings are consistent with previous research suggesting that anxiety may disrupt sleep patterns and lead to poor sleep quality. Understanding the bidirectional relationship between anxiety and sleep is important in order to develop effective interventions to improve both mental health and sleep outcomes in this population. One possible explanation for the observed association is the role of hyperarousal in anxiety, which may lead to difficulty falling asleep, frequent nocturnal awakenings, and nonrestorative sleep. poor sleep can exacerbate anxiety symptoms, creating a vicious cycle that perpetuates both conditions. Preventing anxiety-induced sleep disorders may require multiple interventions targeting both cognitive and physiological aspects of sleep regulation Interventions such as cognitive behavioural therapy for insomnia (CBT-I) have shown promise in treating anxiety-related sleep disorders by addressing unhealthy thinking, maintaining sleep difficulties, and interventions that include mindfulness-based interventions and relaxation strategies And can help reduce symptoms of anxiety and promote relaxation before they are asleep, making it easier for him to sleep soundly It is imperative that health care professionals screen young adults for anxiety symptoms and sleep disorders and offer integrated interventions targeting both conditions at the same time. By addressing anxiety-causing sleep problems early, health care providers can help prevent the onset of more anxiety and improve young adults' overall quality of life.

**Conclusion**: In conclusion, this study reveals a significant relationship between anxiety levels and sleep quality in young people. The findings suggest that poor sleep is more common in high anxious individuals compared to low anxious individuals and that prevention of anxiety-related

sleep problems is important for positive mental health and well-being all in this population. Interventions aimed at improving sleep and reducing anxiety symptoms should take a holistic approach, targeting psychosocial factors that contribute to sleep disturbance. Cognitive-behavioural therapy for insomnia (CBT-I), mindfulness-based interventions, and relaxation techniques show promise in anxiety-related sleep disorders preventing and improving sexual outcomes Health care providers should frequently screen young adults for anxiety symptoms and sleep disorders and offer a combination of interventions that address both conditions simultaneously. By addressing anxiety-causing sleep problems early, health care providers can help prevent the onset of more severe anxiety and improve young adults' overall quality of life Future research should continue to examine the underlying mechanisms associated with anxiety and sleep disorders, as well as examine the long-term efficacy of combined interventions to improve mental health and sleep effects improve Furthermore, anxiety involved by examining potential mediators and moderators of the anxiety-sleep relationship - individual treatment strategies for young people with sleep disorders can be informed Overall together, the prevention of anxiety-related sexual problems is important to promote positive mental health and quality of life in young people.

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