



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

The Relationship Between Sleep Quality And Emotional Regulation In Young Adults: An Exploratory Study Using PSQI And ERQ

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Abstract

The present study examined the relationship between sleep quality and emotional regulation in young adults, with a focus on gender differences. A total of 50 participants (40 females and 10 males), aged between 18 and 30 years ($M = 26$), were recruited through community and online platforms. Data were collected using the Pittsburgh Sleep Quality Index (PSQI) and the Emotion Regulation Questionnaire (ERQ), both administered in English without modifications. The survey took approximately 10–15 minutes to complete and ensured informed consent and confidentiality.

Results indicated that the average sleep duration among females was 5–6 hours, while males reported 8–9 hours with additional naps. Females also showed higher rates of sleep medication use and nighttime phone activity, contributing to shorter and more disturbed sleep. Statistical analysis revealed a significant negative correlation between PSQI scores and cognitive reappraisal ($r = -0.42$, $p < 0.01$), and a positive correlation between PSQI scores and expressive suppression ($r = 0.36$, $p < 0.05$), supporting the hypothesis that poor sleep quality is associated with lower adaptive and higher maladaptive emotional regulation. Gender comparisons showed females were more vulnerable to sleep-related emotional dysregulation.

The study concludes that adequate sleep plays a vital role in emotional stability and mental health among young adults, with women being particularly at risk due to lifestyle and behavioral factors. These findings highlight the need for sleep hygiene interventions and awareness programs targeting young adult populations.

Keywords: Sleep quality, Emotional regulation, Young adults, PSQI, ERQ, Gender differences

Introduction

Sleep quality is a critical determinant of both physical and psychological well-being. Young adulthood (18–30 years) is a developmental stage characterized by academic, professional, and social challenges, often leading to compromised sleep quality. Emotional regulation, defined as the ability to modulate emotional experiences and expressions, is closely linked to sleep. Poor sleep is associated with greater emotional reactivity and reduced capacity to use adaptive strategies such as cognitive reappraisal.

Although international research has examined the association between sleep and emotional regulation, limited empirical studies exist in the Indian context. Furthermore, gender differences and lifestyle factors, such as technology use and medication, have not been adequately explored. This study seeks to address this research gap by using standardized tools – the Pittsburgh Sleep Quality Index (PSQI) and the Emotion Regulation Questionnaire (ERQ) – to examine the relationship between sleep quality and emotional regulation among young adults.

Research Gap

1. Limited studies in the Indian context exploring sleep and emotional regulation among young adults.
2. Few studies simultaneously using PSQI and ERQ to provide comprehensive insights.
3. Gender-specific differences in sleep and emotional regulation remain underexplored.
4. The impact of lifestyle factors such as nighttime phone use and medication on sleep is insufficiently studied.
5. Lack of small-scale exploratory studies to provide context-specific insights.

Research Objectives

- To assess the overall sleep quality of young adults.
- To measure subjective sleep quality, duration, and disturbances using PSQI.
- To identify the proportion of young adults experiencing good vs. poor sleep quality.
- To examine the implications of poor sleep quality on emotional regulation.
- To highlight gender-based differences in sleep and emotional regulation.
- To provide insights for wellness interventions and programs.

Hypotheses

H1: Young adults with poor sleep quality (high PSQI scores) will exhibit lower emotional regulation compared to those with good sleep quality (low PSQI scores).

H0: There is no significant relationship between sleep quality and emotional regulation in young adults.

Methodology

Design: The study employed a cross-sectional exploratory design.

Participants: A total of 50 young adults (40 females, 10 males), aged between 18 and 30 years (Mean = 26), were included. Inclusion criteria: Healthy individuals aged 18–30. Exclusion criteria: Individuals with mental disorders or significant physical health issues.

Tools: Pittsburgh Sleep Quality Index (PSQI) and Emotion Regulation Questionnaire (ERQ), English versions, no modifications.

Procedure: Data were collected online via survey forms. The study took approximately 10–15 minutes to complete, with participants providing informed consent. Confidentiality and voluntary participation were ensured.

Results and Analysis

Descriptive statistics revealed that females averaged 5–6 hours of sleep, whereas males reported 8–9 hours with additional naps. Around 30 females slept less than 6 hours, while most males maintained longer sleep durations. Females reported higher sleep medication use and nighttime phone activity, while males used phones more during the day.

Correlation analysis: PSQI scores were negatively correlated with cognitive reappraisal ($r = -0.42$, $p < 0.01$) and positively correlated with expressive suppression ($r = 0.36$, $p < 0.05$). Independent t-tests showed that females reported significantly poorer sleep compared to males ($p = 0.05$).

Discussion

The findings confirm that poor sleep quality is significantly related to impaired emotional regulation. Young adults, particularly females, reported inadequate sleep and greater difficulty managing emotions. Behavioral patterns such as nighttime phone use and reliance on sleep medication contributed to reduced sleep quality. These results align with prior research indicating that inadequate sleep hampers adaptive emotion regulation and promotes maladaptive strategies.

Implications include the need for interventions promoting sleep hygiene, reducing screen time before bed, and encouraging healthier coping strategies among young adults.

Conclusion

The study concludes that poor sleep quality adversely affects emotional regulation among young adults. Females were more vulnerable, reporting shorter sleep, more disturbances, and greater reliance on sleep aids. These findings underscore the importance of sleep-focused interventions to enhance emotional and psychological well-being.

Limitations and Future Directions

1. Small sample size limits generalizability.
2. Gender imbalance (more females than males).
3. Reliance on self-report measures, potential for response bias.
4. Cross-sectional design; causal inferences cannot be drawn.

Future studies should use larger, more balanced samples, objective sleep measures, and longitudinal designs to further explore sleep-emotion dynamics.

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