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QUALITY OF SLEEP AND MENTAL WELL-BEING AMONG UNDERGRADUATE FEMALE STUDENTS: AN EMPIRICAL INVESTIGATION

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ABSTRACT

Sleep is a fundamental biological process that significantly influences physical, psychological, and emotional functioning. Poor sleep quality has emerged as a major concern among university students due to academic demands, lifestyle changes, and psychosocial stressors. The present study examined the influence of sleep quality on mental well-being among undergraduate female students. A descriptive survey research design was employed. Twenty-five undergraduate female students aged between 18 and 21 years were selected through convenient sampling from colleges in Mysuru Taluk, Karnataka. Mental well-being was assessed using the Warwick–Edinburgh Mental Well-Being Scale (WEMWBS). Participants were categorized into low and high sleep-quality groups. Descriptive statistics and an independent samples t-test were used for data analysis. Results revealed a significant difference in mental well-being between students with low sleep quality ($M = 38.2$, $SD = 8.44$) and high sleep quality ($M = 47.6$, $SD = 10.3$), $t(23) = 2.46$, $p = .02$. The findings indicate that better sleep quality is associated with higher levels of mental well-being among undergraduate female students. The study highlights the importance of promoting healthy sleep habits as a strategy for enhancing psychological well-being among college students.

Keywords: Sleep quality, mental well-being, undergraduate students, WEMWBS, female students, psychological health

1. INTRODUCTION

Mental well-being is increasingly recognized as an essential component of overall health and quality of life. The World Health Organization defines mental well-being as a state in which individuals realize their abilities, cope effectively with normal life stresses, work productively, and contribute meaningfully to their communities (World Health Organization [WHO], 2022). Mental well-being encompasses positive emotions, psychological functioning, resilience, life satisfaction, and social connectedness.

Among the various determinants of mental well-being, sleep quality has received considerable attention in recent years. Sleep is a physiological necessity that supports cognitive performance, emotional regulation, learning, memory consolidation, and psychological recovery (Walker, 2017). Sleep quality refers not only to the duration of sleep but also to factors such as sleep continuity, sleep latency, sleep efficiency, and subjective satisfaction with sleep (Buysse, 2014).

The transition to college life exposes students to academic pressure, social adjustments, technological distractions, and irregular schedules that may negatively affect sleep patterns.

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Research suggests that university students frequently experience insufficient and poor-quality sleep, which can adversely influence their mental health and academic performance (Hershner & Chervin, 2014).

Several theoretical perspectives explain the relationship between sleep and mental well-being. The restorative theory of sleep proposes that adequate sleep restores physiological and psychological functioning, while emotional regulation theories suggest that sleep facilitates adaptive emotional processing and resilience (Goldstein & Walker, 2014). Consequently, poor sleep quality may increase vulnerability to stress, anxiety, depressive symptoms, and reduced psychological well-being.

Given the growing prevalence of sleep disturbances among young adults, investigating the association between sleep quality and mental well-being among undergraduate students is important for designing effective mental health interventions in educational settings.

2. REVIEW OF LITERATURE

A substantial body of research has demonstrated a significant relationship between sleep quality and mental health outcomes.

Sleep Quality and Psychological Health

Buysse (2014) emphasized that sleep quality is a multidimensional construct that strongly predicts psychological functioning. Individuals reporting better sleep quality generally exhibit higher levels of emotional stability, life satisfaction, and psychological resilience.

Hershner and Chervin (2014) reported that sleep deprivation among college students is associated with impaired cognitive functioning, increased emotional distress, and reduced psychological well-being. Their review highlighted that insufficient sleep is highly prevalent among university populations worldwide.

Sleep and Mental Well-Being

Pilcher et al. (1997) found that subjective sleep quality was more strongly associated with psychological well-being than sleep duration alone. Students experiencing poor sleep quality reported significantly lower mood and life satisfaction.

Galderisi et al. (2015) noted that positive mental health is influenced by lifestyle factors, including healthy sleep practices. Their findings suggested that sleep quality contributes substantially to overall mental well-being and functioning.

Sleep Quality among College Students

Lund et al. (2010) investigated sleep patterns among college students and found that irregular sleep schedules were associated with increased stress, depressive symptoms, and poorer emotional health. Similarly, Becker et al. (2018) reported that sleep problems among university students significantly predicted lower psychological well-being and greater emotional difficulties.

Recent Evidence

A systematic review by Scott et al. (2021) concluded that poor sleep quality consistently predicts lower levels of mental well-being and greater psychological distress among young adults. The review further emphasized that interventions targeting sleep improvement can enhance overall mental health outcomes.

Although international studies have established the importance of sleep quality for psychological functioning, limited research has examined this relationship among

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undergraduate female students in rural Indian contexts. Therefore, the present study seeks to contribute to this growing body of literature.

3. OBJECTIVES OF THE STUDY

1. To examine the influence of sleep quality on mental well-being among undergraduate female students.

4. HYPOTHESIS

H_1: There is a significant influence of sleep quality on mental well-being among undergraduate students.

5. METHODOLOGY

Research Design

The present study adopted a descriptive survey research design to investigate the influence of sleep quality on mental well-being among undergraduate female students.

Participants

The study consisted of 25 undergraduate female students aged between 18 and 21 years from colleges located in Mysuru Taluk, Karnataka. Participants were selected using a convenient sampling technique.

Inclusion Criteria

- Female undergraduate students.
- Age between 18 and 21 years.
- Ability to read and write Kannada and English.
- Willingness to participate voluntarily.
- Students enrolled in B.A., B.Sc., and B.Com. programs.

Exclusion Criteria

- Students below 18 years and above 21 years.
- Individuals unable to read and write Kannada and English.
- Students unwilling to participate.

Variables

Independent Variable

- Sleep Quality

Dependent Variable

- Mental Well-Being

6. INSTRUMENTS

Socio-Demographic Information Sheet

A socio-demographic questionnaire was developed by the researcher to collect information regarding participants' age, educational background, and other relevant characteristics.

Warwick–Edinburgh Mental Well-Being Scale (WEMWBS)

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Mental well-being was assessed using the Warwick–Edinburgh Mental Well-Being Scale developed by Tennant et al. (2007). The scale contains 14 positively worded items measuring positive mental health and psychological functioning.

Participants respond using a five-point Likert scale ranging from 1 (None of the time) to 5 (All of the time). Total scores range from 14 to 70, with higher scores indicating greater mental well-being.

The WEMWBS has demonstrated excellent psychometric properties, with Cronbach's alpha coefficients ranging from .89 to .91 and strong construct validity across diverse populations (Tennant et al., 2007).

7. STATISTICAL ANALYSIS

Data were analyzed using descriptive statistics, including means and standard deviations. An independent samples t-test was employed to determine whether significant differences existed in mental well-being between students reporting low and high sleep quality.

8. RESULTS

Table 1

Differences in Mental Well-Being Based on Sleep Quality

Group	N	Mean	SD	t-value	p-value
Low Sleep Quality	16	38.2	8.44	2.46	.02*
High Sleep Quality	09	47.6	10.30		
Total	25				

*p < .05

Interpretation

Students with high sleep quality reported significantly higher mental well-being (M = 47.6, SD = 10.30) than students with low sleep quality (M = 38.2, SD = 8.44). The obtained t-value, t(23) = 2.46, p = .02, indicates a statistically significant difference between the two groups. Therefore, the hypothesis was supported.

9. DISCUSSION

The present study examined the influence of sleep quality on mental well-being among undergraduate female students. The findings revealed that students with better sleep quality exhibited significantly higher levels of mental well-being compared to students experiencing poor sleep quality.

The findings support previous studies demonstrating that sleep quality is a critical determinant of psychological health. Hershner and Chervin (2014) observed that inadequate sleep among college students contributes to emotional distress, impaired cognitive functioning, and reduced psychological well-being. Similarly, Lund et al. (2010) reported that poor sleep quality was associated with increased stress and diminished emotional health among university students.

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The results are also consistent with the findings of Becker et al. (2018), who identified sleep disturbances as significant predictors of poor mental health among young adults. Furthermore, Scott et al. (2021) concluded that sleep quality is one of the strongest lifestyle predictors of positive mental well-being.

From a theoretical perspective, the findings can be explained through the restorative theory of sleep, which suggests that sleep facilitates emotional recovery and cognitive restoration. Adequate sleep promotes effective emotional regulation, positive affect, and resilience, thereby enhancing overall mental well-being (Goldstein & Walker, 2014).

The observed differences may also be attributed to the role of sleep in regulating neurobiological processes associated with mood and stress management. Students with better sleep quality may possess greater psychological resources for coping with academic and personal challenges, resulting in higher levels of mental well-being.

10. CONCLUSION

The study demonstrated that sleep quality significantly influences mental well-being among undergraduate female students. Students with higher sleep quality reported significantly greater mental well-being than those with lower sleep quality. These findings underscore the importance of promoting healthy sleep practices within higher education settings as a means of enhancing students' psychological health and overall well-being.

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