

Relationship between Sleep Quality and General Well Being among Young Adults

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ABSTRACT

This study on sleep quality and general well-being of young adults tries to examine the relationship between sleep quality and general wellbeing among young adults, recognising the significance of sleep influencing various aspects of health and functioning during this particular developmental stage. With the focus on the transition to young adulthood which is a period characterised by significant life changes and increased stresses, this particular study aims to Explain the complex relationship between sleep quality and overall well-being. This study uses a quantitative approach in which data of 172 participants was collected on a sample of young adults aged between 18 to 30 years assessing the sleep quality and general well-being through validated measures. Statistical analysis was done to explore the association between sleep quality and various indicators of wellbeing. The findings of this research hold implications for promoting holistic health and informing targeted interventions aim that optimising sleep health and enhancing overall wellbeing among young adults.

Keywords: *Sleep Quality, General Well Being, Sleep, Relationship*

Sleep is an essential aspect of life that ensures a person's quality of life in general, emotional stability and physical and mental health. Throughout human history, sleep has fascinated academics, scientists and philosophers, to the physiological effects and cultural significance of which is being studied.

In modern cultural society, concerns about the negative effects of sleep disorders, sleep deprivation and poor sleep quality on human well-being, productivity and public health are increasingly spread. According to studies, insufficient and poor-quality sleep leads to a decrease in immunity, cognitive abilities, increased level of stress, difficulties in controlling emotions and a high risk of subsequent chronic illness.

The period between late adolescence and early adulthood, from roughly 18 to 25 years old, is known as young adulthood. This is a distinctive lifespan stage distinguished by major biological, psychological, and social shifts. In this transitional period, individuals experience major modifications in their identity, independence, relations and obligations, which has an impact on their attitudes, activities and experiences.

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Relationship between Sleep Quality and General Well Being among Young Adults

Despite the fact that sleep is essential for overall health and healthy functional operating as the quality of it, young adults are likely to underestimate sleep. In addition to anxiety of academics, other precautions may include work commitments, social life, digital media consumption, ecological situations, and lifestyle behaviours. Sleep habits are impacted by the widespread use of electronic gadgets, including computers, tablets and smartphones, which often disrupt the sleep onset, time, and quality which has contributed to the high rate of sleep disorders among youth.

With its consequences for personal health, scholastic achievement, professional success, interpersonal connections, and general quality of life, the relationship between young adults Sleep quality and general well-being is a topic of great interest and significance. Even though the significance of sleep for overall health is becoming more widely acknowledged, empirical studies that methodologically investigate the intricate relationships between different aspects of young adults' overall health and their sleep quality are still needed.

Previous research on the relationship between young adult patterns and their overall health has shed light on the frequency, causes and effects of sleep disturbances in this demographic. Nonetheless, there are still a number of holes and restrictions in the literature such as contradictory results, poor methodology, and unclear theoretical frameworks.

The current study aims to fill in these knowledge gaps by using a thorough and multifaceted Approach to examine the relationship between young adults' general wellbeing and their sleep quality.

Numerous negative consequences, such as reduced immune function, lowered emotional regulation, increased stress, and an increased risk of mental health disorders, have all been linked to poor sleep quality. This particular aspect has been repeatedly shown through various research in past few years. Moreover, studies have indicated a connection between inadequate sleep and a heightened likelihood of chronic ailments like obesity, diabetes, cardiovascular disease and hypertension, highlighting the significant influence of sleep on general health and Wellness.

Although the significance of sleep for overall health is becoming more widely acknowledged, a thorough comprehension of indicate relationship between overall health and quality in young adults is still lacking. An interdisciplinary up touch that incorporates both subjective and objective sleep quality measures with thorough evaluations of many aspects of well-being such as physical, mental and emotional well-being, being social functioning and overall quality of life is needed to properly investigate the relationship.

Thus, the current study aims to close this gap in the literature by examining the complex dynamics influencing the association between young adults' overall wellbeing and their quality of sleep. This study aims to clarify the mechanisms underlying the association between sleep and well-being, identify factors that contribute to sleep disturbance in young adults and investigate potential avenues for intervention and prevention by utilising a multidisciplinary approach that combines quantitative and qualitative methods.

METHODOLOGY

Objective

To investigate whether there is a significant association between sleep quality and general well-being in young adults.

Relationship between Sleep Quality and General Well Being among Young Adults

Hypothesis

Null Hypothesis (Ho) – There is no significant relationship between sleep quality and general well-being in young adults.

Research Design

It is a Cross-sectional survey design study. In this study, data will be collected at a single point in time from a sample of young adults to assess the relationship between sleep quality and general well-being. Participants will be asked to complete self-report questionnaires measuring their sleep quality and general well-being. This design allows for the efficient collection of data from a diverse sample of individuals within a specific timeframe, providing valuable insights into the relationship between sleep quality and general well-being in young adults.

Variables

Independent Variable

Sleep Quality – It refers to how well a person sleeps including Factors such as how long it takes to sleep, how often they wake up during the night, And how rested or sleepy they feel after waking up and-during the day.

Dependent Variable

General Well Being – It refers to individuals overall state of health and happiness which includes physical, emotional and social aspects of life. it shows how satisfied and content a person is with their life and how much an individual is able to cope up with daily life challenges.

Sample

A sample of 172 individuals ranging between 18-30 years participated in this study in which 94 (54.65%) were females and 78 (45.34%) were male candidates, Convenience sampling method was used to choose sample and people who gave consent for the study were taken as participants for this research.

Measures

- **Sleep Quality Scale** – Yi and Shin Developed this self-report questionnaire designed to measure an individual's subjective perception of their sleep quality. It is a 28 item scale including 6 domains of sleep quality which are restoration after sleep, daytime symptoms, problems initiating and maintaining sleep, sleep satisfaction and difficulty waking. It is a 4 point likert type scale which can be used on population aged 18 to 59 years.
- **PGI General Well Being Scale** - This scale is also termed as psychological general wellbeing index is a self-report measure developed to evaluate overall well-being of an individual. It was developed by Verma and Verma in 1984 and consists of comprehensive set of items targeting various areas of psychological well-being including anxiety, depression, positive affect and overall life satisfaction. It includes a total of 20 items and is utilised widely in research and clinical settings.

RESULTS

The study revealed diverse level of sleep quality and well-being among participants (N-172).

Table 1. Descriptive statistics.

Descriptive Statistics			
	Mean	Std. Deviation	N
Well being Scoring	5.48	5.231	172
sleepquality	38.56	10.414	172

As shown in Table 1, the average of General well-being of participants came out to be 5.48 which suggests that participants Reported a relatively low level of wellbeing. this provides a central tendency measure which indicates the typical level of well-being reported by the sample. The standard deviation of participants came out to be 5.481 which indicated a moderate to high level of variability in the well-being scores among participants. The average of sleep quality score came out to be 38.56 which indicates that on average participants court approximately 46% of the total possible points on the sleep quality measure. The standard deviation of participants in sleep quality scale was 10.414 which suggests that the variability of sleep quality scores within the sample was considerable. in this case a higher standard deviation suggested that the sleep quality scores in sample vary more widely from the average score of 38.56.

Table 2. Correlation Analysis

Correlations			
		Well being Scoring	sleepquality
Well being Scoring	Pearson Correlation	1	-.085
	Sig. (2-tailed)		.268
	N	172	172
sleepquality	Pearson Correlation	-.085	1
	Sig. (2-tailed)	.268	
	N	172	172

Table. Correlation between Sleep Quality and General Well Being among participants.

The correlation coefficient between the sleep quality and general wellbeing of young adults came out to be -0.085 Which indicates a weak negative correlation. it suggests relationship between the variables is very weak. the significance value of 0.134 indicates that the correlation coefficient is not statistically significant that the conventional significance level of 0. 05. this means that there is insufficient evidence to conclude that the observed correlation is different from zero. Thus, this research accepts the hypothesis that there is no significant relationship between Sleep Quality and Well Being among Young adults.

Relationship between Sleep Quality and General Well Being among Young Adults

Table 3. Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics	
					R Square Change	F Change
1	.085 ^a	.007	.001	5.227	.007	1.234

Model	Change Statistics			Durbin-Watson
	df1	df2	Sig. F Change	
1	1	170	.268	1.950

a. Predictors: (Constant), sleepquality

b. Dependent Variable: Well being Scoring

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.720	1	33.720	1.234	.268 ^b
	Residual	4645.228	170	27.325		
	Total	4678.948	171			

a. Dependent Variable: Well being Scoring

b. Predictors: (Constant), sleepquality

Regression analysis provided insights into the relationship between variables. The coefficient of 0.085 indicates the strengthen direction of the relationship between sleep faulty and general well-being. the positive coefficient suggested that higher levels of sleep quality are associated with slightly higher levels of general wellbeing. however, the coefficient is very small indicating a weak relationship. The R squared value of 0.007 Suggests that only 0.7% of the variance in general wellbeing can be explained by sleep quality alone. The adjusted R squared value Of 0.001 takes into the account the number of predictors in the model and adjust the r squared value accordingly. The standard error of estimate which is 5.226 represents the average distance that the observed values fall from the regression line. The R- squared change of 0.007 indicates the increase in the proportions of variance in general well-being explained by adding sleep quality to the model. As the changes very small, it suggests that sleep quality contributes only marginally to the prediction of general well-being.

The F change value of 1.234 represents the ratio of the main square due to the aggression to the main square due to error. It reflects the overall significance of adding sleep quality to the model. greater value than one indicates that adding sleep quality to the model improves its overall fit but in this case the improvement is minimal. The Durbin Watson statistic came out to be 1.950 which is close to 2. it indicates that there is likely no significant autocorrelation in the residuals of regression model. does the assumption of independent errors in the regression analysis is reasonable.

Relationship between Sleep Quality and General Well Being among Young Adults

Fig 1. Histogram depicting frequency of dependent variable (Well Being) on Regression Standardized Residual.

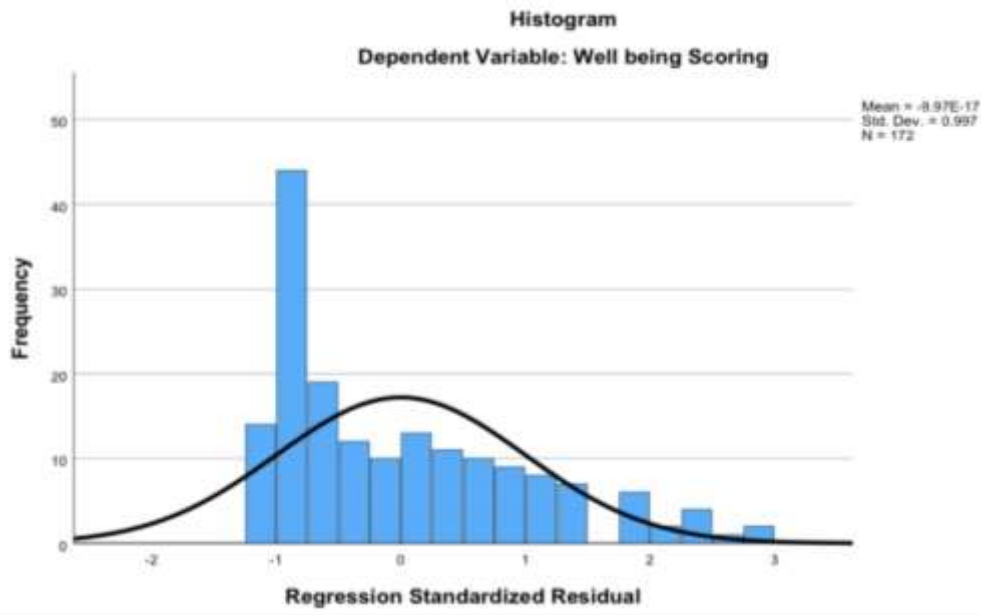
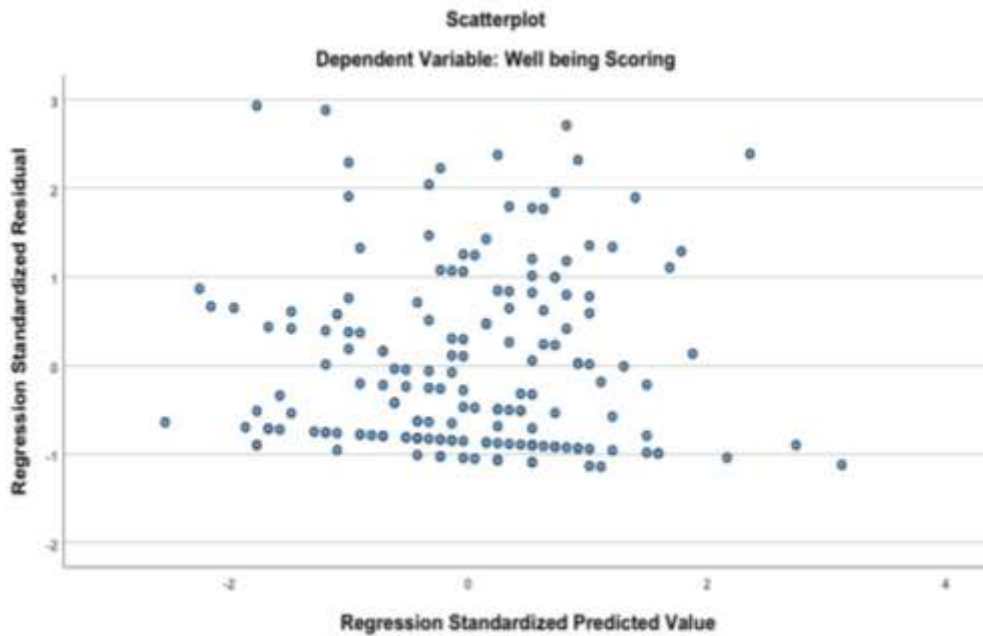
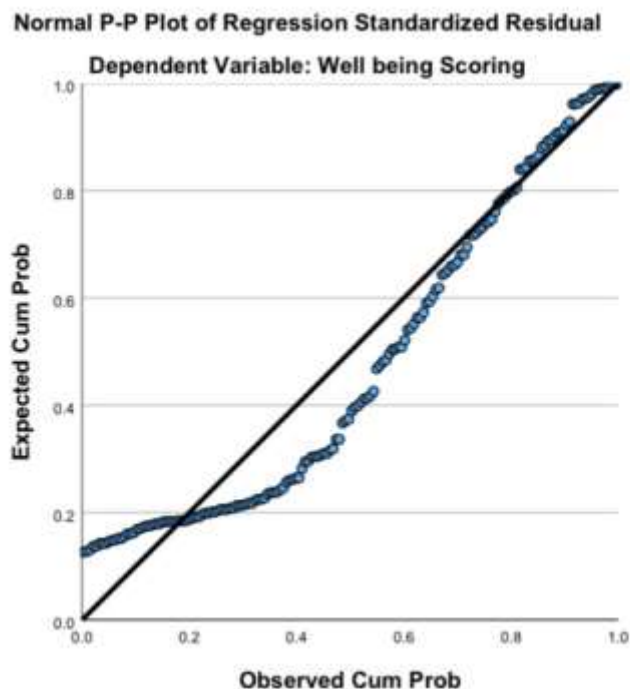


Fig 2. Scatterplot depicting Regression Standardised Residual on Regression Standardized Predicted value using General Well Being (Dependent Variable)



Relationship between Sleep Quality and General Well Being among Young Adults

Fig 3. Normal P-P Plot of Regression Standardized Residual depicting the expected cum prob and observed cum prob of dependent variable (General Well Being).



DISCUSSION

The present study examines the variables Sleep Quality and General Well Being. The aim of the study was to find an association between the two variables and how this association works. The total sample size for the study was 172 participants including 78 males and 94 females. To support this research, researchers from past 4 years was reviewed. The hypothesis of this study stated, “There will be no significant difference between Sleep Quality and General Well Being of Young adults”. To test the above hypothesis, regression and correlation were calculated between Sleep Quality and General Well Being among young adults. The obtained correlation came out to be -0.085 indicating that There is a weak negative correlation between Sleep Quality and General Well Being among Young Adults.

The mean, Median and mode are the e measures of central tendency which are the used to describe the distribution if data. They provided valuable insights into the characteristics this study. Sleep Quality was kept as an independent variable in this research. The mean sleep quality score of 38.56 indicates the average value of sleep reported by participants. This suggests that in average, participants rated low sleep quality. The median sleep quality score of 38.50 represents the middle value of distribution, indicating half of the participants reported sleep quality below 38.5 and half reported above 38.50. The mode was 30 which indicated most frequent occurring value in the data. This suggests a significant proportion of participants reported quality sleep score of 33 which is lower compared to rest of the sample. This distribution of sleep quality scores suggests that while the average sleep quality is moderate, there is variability in how participants rated their sleep quality. The presence of a mode at 33 suggests that there may be a cluster of participants who reported relatively lower sleep quality compared to the rest of the sample.

Wellbeing was taken as the dependent variable in this study. The mean of wellbeing scores came out to be 5.48 which represented very low level of well-being reported by participants

Relationship between Sleep Quality and General Well Being among Young Adults

in the study. The median came out to be 4.0 which is lower than the mean. This suggests that the distribution of well-being is skewed towards lower values. The mode of one indicates that the most frequent occurring value in the data is 1 Which suggests that a significant proportion of participants reported very low level of well-being. The distribution of well-being score suggested that while the average well-being is very low, there is a variability in how participants rated their well-being.

Overall, the descriptive statistics, especially the measures of central tendency provide complementary information about sleep quality and wellbeing scores in this study. These measures helped in summarising the data and identifying the patterns and trends that may be present in the responses of the participants. The scores of sleep quality and well-being in this study reflected range of experiences among the participants. While the average scores indicate low levels overall, the distribution of scores revealed variability within the sample with some Participants experiencing relatively lower levels of sleep quality and wellbeing. This shows the bold importance of considering individual differences and potential factors influencing sleep quality and well-being in further research and interventions aimed at improving overall health and Wellness.

Standard deviation of sleep quality indicated that the individual scores in the sample varied by approximately 10.414 point from the mean score of 38.56. This suggested there was a considerable amount of reliability and how participating their sleep quality with some reporting scores that were significantly higher or lower than the average.

Standard deviation for wellbeing indicated that the individual scores in the sample varied by approximately 5.231 point from the main score of 5.48. This suggested notable amount of variability in the reported levels of wellbeing among participants, with a few scores that were significantly higher or lower than the average.

Therefore, the standard deviations highlighted the degree of variability within the sample for both sleep quality and wellbeing. It emphasises the importance of considering individual differences and potential factors which influence these outcomes.

The overall regression analysis suggested that sleep quality has a very weak and marginal predictive relationship with general wellbeing in this study. Other factors that are not included in this analysis may also have a more substantial influence on general wellbeing. It highlighted the complexity of factors that contribute to overall wellbeing and young adult.

The correlation coefficient of -0.085 showed a very weak negative relationship between sleep quality and general well-being. Although this is not statistically significant ($p > 0.05$) and indicated that sleep quality decreases which may be a slight tendency for general wellbeing to decrease as well. But this relationship is not strong enough to be considered significant.

Regression analysis also supported this conclusion, with the small coefficient of 0.085 for sleep quality. This suggested that for every one unit increase in sleep quality, general wellbeing will increase by only a very small amount. The r^2 value of 0.07 indicates that sleep quality explains only 0.7% of the variance in general well-being while the adjusted r^2 value of 0.001 suggested that when accounting for the complexity of the model the explanatory power of the sleep quality decreases even more.

Relationship between Sleep Quality and General Well Being among Young Adults

Durbin Watson statistic was used in this study to detect auto correlation in the residuals of regression Analysis. The value of Durbin Watson statistics in this study was 1.950 Which falls close to 2 suggest that the assumption of independent errors in the regression analysis is reasonable. This shows that the assumption of independent authors is met, and the results of the regression analysis are reliable.

Overall, these results show that sleep quality alone is not a strong predictor of general wellbeing among young adults in this study. Other factors Not considered in this analysis such as stress level, social support, physical health and lifestyle factors, may have a more significant influence on general wellbeing. Most research needs to be done with a border range of variables which may provide a more comprehensive understanding of the factors contributing to Well-being in this population.

The results indicated that there might be some participants Who reported Relatively poor sleep quality dragging the mean slightly high. this shows that while the average sleep quality is moderately low but They subgroup of individual experiencing most significant sleep disturbances. This research also represents relatively low levels of well-being which could indicate that people might be facing underlying issues that are affecting their quality of life.

Some participants may report poor sleep quality than others who may experience excessive quality of sleep leading to wide dispersion of scores. Participants also showed that their subjective experience of well-being vary widely with some having very low levels of well-being than others.

The wide variability in sleep quality scores highlights the complex nature of sleep and its impact on daily functioning. Poor sleep quality can Have profound effects on cognitive function, mood regulation and physical health. factors such a stress comma environmental disturbances and lifestyle habits can contribute to variations in sleep quality among individuals.

The distribution of wellbeing and quality of life Shows that a notable proportion of Participants may experience challenges in various stages of their lives, Such as mental health, social relationships and overall life satisfaction. Low level of well-being can be associated with poor physical health outcomes, high stress levels and reduced overall quality of life.

The variability in sleep quality underscores the importance of promoting good sleep hygiene practices among individuals. we need to educate individuals about the importance of establishing a regular sleep schedule, create a comfortable environment to sleep and rest properly. People also need to practice relaxation techniques that can help them improve all sleep quality and wellbeing.

The wide range of wellbeing scores highlight the subjective nature of wellbeing and a multitude of factors that contribute to individuals' overall sense of happiness and fulfilment Which will increase their quality of life and life satisfaction. Concepts like self-perceived health, social support and life satisfaction Play Important role in shaping individual subjective wellbeing.

The variability sleep quality scores observed in the study underscores the import importance of implementing effective sleep hygiene practices. People need to maintain a consistent

Relationship between Sleep Quality and General Well Being among Young Adults

sleep schedule which will create a conducive sleep environment free some distractions. people need to engage in Relaxation techniques before bedtime that will significantly impact their seed quality. people with who was sleep quality can benefit from interventions aimed at improving their sleep hygiene practices enhancing their overall wellbeing.

Sleep quality also impacts cognitive functioning of individuals, which includes attention, memory and decision making. people who experience poor sleep quality may exhibit cognitive impairment such as reduce concentration, impaired problem-solving abilities and memory lapses. Divide by the built in sleep quality scores also so that diverse cognitive effect experienced by individuals within the sample. people need to address their sleep disturbances and promote better sleep quality so that it may lead to improvement and cognitive functioning and overall mental wellbeing.

Subjective wellbeing includes individuals' overall evaluation of their life which may include mostly emotional Experiences, life satisfaction and fulfillment. this study shows that the subjective nature of wellbeing and complex interplay of factors that contribute to individuals' overall sense of happiness and satisfaction with life. Poor sleep quality is linked to low subjective wellbeing s sleep disturbances can impact more regulation, Emotional stability and overall life satisfaction. People need to enhance sleep quality through interventions aim that addressing underlying sleep disorders in promoting healthy sleep habits which will lead to promoting subjective wellbeing and overall quality of life in their life.

We have seen that stress is a significant determinant of sleep quality and well-being. High stress levels contribute to poor sleep outcomes like insomnia and segmented sleep. People experience chronic stress are more susceptible to sleep disturbances Which leads to disturbance in their daily functioning and overall wellbeing. Dealership between stress and sleep quality show the importance of Adding stress management strategies as part of interventions aimed at improving sleep quality and well-being in daily life. Techniques like mindfulness meditation, relaxation and stress reduction therapies help individuals better coping stress and improve their sleep quality.

The detailed interpretation of results provides a valuable insight into the relationship between sleep quality and well-being which also emphasises the need for target intervention to address individual differences and promote optimal health and quality of life. further research and interventions are necessary to advise the diverse needs of individuals and enhance overall wellbeing among individuals.

CONCLUSION

This research sheds light on the important relationship between sleep Quality and overall well-being in young adults. Weekend imagine sleep at the foundation of a house in which if the foundation is shaky, the entire structure becomes unstable. Similarly, when our sleep quality is poor, it affects many aspects of our life.

This research found that sleep quality varies among individuals. Some people may not have any trouble falling asleep and waking up feeling refreshed, while others Struggle to get a good night's rest. This variation highlighted the importance of understanding and addressing sleep issues on an individual level.

Relationship between Sleep Quality and General Well Being among Young Adults

This research also Depicted that sleep quality is closely linked to how we feel about our lives. We can think of it as a mood meter in which when we sleep well, we tend to feel happy, more satisfied and better equipped to handle life challenges. However, when sleep quality is poor, it can negatively impact the mood, which can make us feel irritable, stressed or not able to cope up with daily life activities.

The study also highlights the importance of paying attention to a sleep habits. Just the way we take care of our physical health by eating well and exercising, we need to prioritise our sleep health as well. we can make simple changes inner daily life Which may include creating a comfortable sleep environment, sticking to a regular sleep schedule or even practice in relaxation technique before bed can make a big difference in improving our sleep quality.

this research also shows the need for support and intervention for those struggling with sleep issues. Resources available to help in improving a sleep quality and overall wellbeing. It can include seeking advice for my healthcare professional, joining support group or trying relaxation techniques like deep breathing and meditation.

Therefore, this study tried to highlight the crucial role that sleep plays in our life. By prioritising good sleep habits and seeking support when needed we can enhance overall wellbeing and live happier and healthier life. Just the way a strong foundation is needed for making of a strong building, sleep quality is fundamental for fulfilling unbalance life. So, let's make sleep are priority and invest in our well-being for our healthy future.

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Relationship between Sleep Quality and General Well Being among Young Adults

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Conflict of Interest

The author(s) declared no conflict of interest.

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