Lack of Sleep Can Affect Mental Health

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Sleep deprivation illustration, Photo by Andrea Piacquadio (Hungary)

Abstract : This study examined 20 people with mental disorders, namely depression or stress in Paris, France and 20 people with mental disorders in Jakarta, Indonesia who were not hospitalized and carried out normal daily activities. We examined the relationship between stress levels, busyness, and sleep time of a person in 20 weeks. We use average data or all data obtained is averaged, which is then grouped based on the specified group of variables, then the regression is carried out using ordinary least squares (OLS).Based on the results of observations and regressions on 20 people with mental disorders, namely depression or stress in Paris, France and 20 people with mental disorders in Jakarta, Indonesia who were not hospitalized and carried out normal daily activities, it can be concluded that sleep quality and busyness have an effect. on a person's mental health where in this study the mental health disorder studied is a person's stress level or depression which is briefly. An R-squared level of 0.954976 indicating that the level of truth of the relationship had an effect on sleep quality, busyness and mental health by 95%. Concluded that the quality of sleep and busyness had an impact on mental health.

Keywords: Mental Health, Sleep, Indonesia, France
JEL Classification : C23, I10, I12

1 INTRODUCTION

Sleep is one of the needs that must be fulfilled properly. Everyone needs sleep to rest the body after a day of activities. Everyone's sleep needs vary depending on one's age. In general, adults need about 7 to 8 hours to get adequate and ideal sleep (Endee & Spriggs,2020).

If the need for sleep is not fulfilled properly, it can have various kinds of influences or bad effects on health. Sleep deprivation is often associated with various disease risks, such as heart disease and type 2 diabetes. Not only that, but there are also some effects of lack of sleep on poor mental health (Farooqui,2020). People who don't get enough sleep are more likely to get tired and irritated. Not only that, but lack of sleep also causes various mental disorders. Such as feelings of stress that can cause anxiety. If this is allowed to continue, this condition can develop and become more severe.

The link between lack of sleep and mental health tends to be complex because the two are closely related to one another. For example, the case of insomnia worsens a person's mental condition. On the other hand, the stress experienced by a person can trigger sleep deprivation (Foldvary-Schaefer et al,2019).

This study examined 20 people with mental disorders, namely depression or stress in Paris, France and 20 people with mental disorders in Jakarta, Indonesia who were not hospitalized and carried out normal daily activities. We examined the relationship between stress levels, busyness, and sleep time of a person in 20 weeks.

2 LITERATUR REVIEW

Poor sleep quality or sleep deprivation occurs when a person has very little sleep in a long period of time. This cannot be tolerated because lack of sleep can affect human mental health (JoCoiro et al,2021).

Regular sleep patterns will make sleep better quality. So if human often don't get enough sleep on weekdays, that doesn't mean you can replace it on weekends (Perlis et al,2010).

Regular sleep patterns are needed so that physical and physical health is always maintained. The body feels sluggish, often sleepy, and headaches can be symptoms of the body that arise when sleep deprivation (Lee & Lawson,2021).

Sleep quality and mental health have a strong link. Chronic lack of sleep can affect a person's mental and psychological health. On the other hand, people with mental health tend to suffer from insomnia and other sleep disorders (Wang et al,2021).

Lack of sleep also affects emotional arousal and can lead to anger, sadness or anxiety. In fact, not only lack of sleep has an impact on mental health, hypersomnia or excessive sleep can also affect one's mental health (Koutoukidis & Stainton,2020).

People with good mental health do not display high levels of sleep disturbances. Sleep is the mainstay of mental health can be explained simply. When we are asleep, our body temperature decreases, our muscles relax, and our heart rate and breathing slow down.

A good night's sleep will increase the role of the immune system (Eissa et al,2020). This is what helps to protect mental health as well. Insomnia and other sleep disorders increase a person's risk of developing depression. Depression is a common mental disorder. Depression can cause a person to feel insignificant and overshadowed by negative thoughts about himself (Kakar & Nundy,2017).

3 RESEARCH OBJECTIVE AND METHODOLOGY

This study examined 20 people with mental disorders, namely depression or stress in Paris, France and 20 people with mental disorders in Jakarta, Indonesia who were not hospitalized and carried out normal daily activities. We examined the relationship between stress levels, busyness, and sleep time of a person in 20 weeks. We use average data or all data obtained is averaged, which is then grouped based on the specified group of variables, then the regression is carried out using ordinary least squares (OLS) method with the following equation:

$$Sl_t = C_t + \beta_1 B_{t1} + \beta_2 St_2 + e_t$$

Where,
Sl = stress levels
B = busyness
St = sleep time of a person
e = Error Term

5 RESULTS AND DISCUSSION

The estimation results are as follows:

SL = 4.97748294237 - 0.536153297973*ST + 0.50496995342*B

From the OLS estimation results, stress level (Sl) is positively related to busyness (B) and negatively related to one's sleep time (St). Where every 1% increase in stress level (Sl) is followed by busyness (B) by 0.536% and a decrease in one's sleep time (St) by 0.505%. So based on the results of observations and regressions on 20 people with mental disorders, namely depression or stress in Paris, France and 20 people with mental disorders in Jakarta, Indonesia who were not hospitalized and carried out normal daily activities, it can be concluded that sleep quality and busyness have an effect on a person's mental health where in this study the mental health disorder studied is a person's stress level or depression which is briefly described in Table 1. which illustrates the estimation results with the following results:

Table 1. Estimation Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.977483	1.00636	4.946026	0.0001
ST	-0.536153	0.095612	-5.607575	0
B	0.50497	0.173577	2.909204	0.0098
R-squared	0.954976	Mean dependent var		5.3
Adjusted R-squared	0.949679	S.D. dependent var		2.028741
S.E. of regression	0.455096	Akaike info criterion		1.400863
Sum squared resid	3.520904	Schwarz criterion		1.550223
Log likelihood	-11.00863	Hannan-Quinn criter.		1.430019
F-statistic	180.2867	Durbin-Watson stat		0.975477
Prob(F-statistic)	0			

Based on the estimation results described in Table 1.Mental health monitoring, level of activity and sleep quality in 20 people with mental disorders, namely depression or stress in Paris, France and 20 people with mental disorders in Jakarta, Indonesia who were not hospitalized and carried out normal daily activities, concluded that the quality of sleep and busyness had an impact on mental health. An R-squared level of 0.954976 indicating that the level of truth of the relationship had an effect on sleep quality, busyness and mental health by 95%.

6 CONCLUSION

Based on the results of observations and regressions on 20 people with mental disorders, namely depression or stress in Paris, France and 20 people with mental disorders in Jakarta, Indonesia who were not hospitalized and carried out normal daily activities, it can be concluded that sleep quality and busyness have an effect. on a person's mental health where in this study the mental health disorder studied is a person's stress level or depression which is briefly. An R-squared level of 0.954976 indicating that the level of truth of the relationship had an effect on sleep quality, busyness and mental health by 95%. Concluded that the quality of sleep and busyness had an impact on mental health.

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