



Introduction

General health providers can agree that getting a good night's rest is important for day to day function and overall health. Just like sleep, mental health is of importance because it directly impacts our thoughts, behaviors, and emotions. A 2018 study studied the relationship between personal sleep debt and mental health outcomes in young university students and the general population. Their findings showed that young university students had more of a mental health risk caused by sleep related disturbances and evening chronotype in comparison to the general population (Dickinson et al., 2018). Furthermore, a study done on Chilean college students showed a link between excessive daytime sleepiness and poor sleep quality with increased odds for common mental health disorders. The results of this study also showed that estimates of these two factors were greater among females than males. However, the prevalence of common mental health disorders was higher among males than females (Concepcion et al., 2014) the purpose of the research. The purpose of our present study was to provide more evidence supporting previous findings and develop a deeper insight on this relationship.

Hypotheses

We predicted that there would be a relationship between irregular sleep schedules and common mental health disorders in college students. Furthermore, we also hypothesized that demographics such as race/ethnicity, age, and gender may play a role in the presence of these common mental health disorders.

Method

Participants

The participants in our study (n=114) were college students from various college campuses, the majority being from Cypress College. The majority of our participants were female (n=74, 64%) and the remaining participants were male (n=41, 36%). The age range for our participants was 16-32 (M = 20). In addition, participants self-identified their race/ethnicity with the majority being as Hispanic or Latino (n = 74, 64%) and Asian (n = 22, 19%).

Measures

The Epworth Sleepiness Scale (ESS; Johns MW, 1991) is an 8-item questionnaire used to asses daytime sleepiness. The ESS has a high level of internal consistency ($\alpha = 0.88$). The Pittsburgh Sleep Quality Index (PSQI; Buysse et al, 1989) is a seven component questionnaire used to measure the quality and patterns of sleep in adults ($\alpha = 0.83$). The Anxiety and Preoccupation about Sleep Questionnaire (APSQ; Tang & Harvey, 2004) is a 10-item questionnaire used to asses sleep-related worry ($\alpha = 0.92$). Lastly, the General Health Questionnaire (GHQ-12; Goldberg 1972) has 12 components used in screening to detect mental health disorders ($\alpha = 0.86$).

Procedure

Data was collected through the online survey platforms, google forms. All of our participants were volunteers who were informed of the study through social media and through canvas. Each participant was given information about the purpose of the study and no reimbursement was given for their participation. By filling out the survey anonymously the participants consented to having their responses used in the study

Results

Table 1

Descriptive Statistics for independent variables.

	N	M	SEM	SD
SLEEPINESS	114	8.11	0.303	3.23
SLEEPHOURS	114	7.04	0.139	1.48
QAULTY	114	7.62	0.291	3.11
ANXIETY	114	51.16	2.128	22.72
WELLNESST	114	15.05	0.718	7.66

Note. The results of the four independent variables had a significant main effect on the WELLNESS total score.

We found that the regression of the four independent measures SLEEPINESSSCALE, HoursOfSleep, SLEEPQUALITYTOTAL, and SLEEPANXIETYTOTAL was a significant main effect, $F(4, 109) = 10.81, p < .05$. This states that the dependent measure, WELLNESSTOTAL was affected by these four tests. By individually looking at the Coefficients of each of the four independent measures, we noticed that SLEEPINESSSCALE, $t = 1.11, p = .94$, and HoursOfSleep, $t = .69, p = .27$, are not significant enough to state that these measures could affect an individual's score from WELLNESSTOTAL at the $p < .05$ level. However, SLEEPQUALITYTOTAL, $t = 3.49, p = .001$, and SLEEPANXIETYTOTAL, $t = 3.16, p = .002$, are significant enough to state that an individual's WELLNESSTOTAL score could be affected.

Table 2

Multiple Regression Analysis

	B	SE	B	t	p
(constant)	-0.352	4.671		-0.075	0.940
SLEEPINESS	0.227	0.204	0.096	1.11	0.269
SLEEPHOURS	0.328	0.471	0.063	0.697	0.488
QUALITY	0.840	0.240	0.340	3.494	0.001
ANXIETY	0.095	0.030	0.282	3.156	0.002

Note. There was a significant relationship with wellness and sleep quality at $p < .05$ level, $p = .001$.

Discussion

We believe that our results supported this hypothesis. Most of the participants had poor sleep patterns and listed in other reasons for trouble sleeping, from the PSQI questionnaire, certain stress factors that would affect their mental health. There were some participants who already had pre-existing mental disorders and we predicted that it could possibly create a stronger correlation with their WELLNESSTOTAL. Based on our results, we saw that responses from SLEEPANXIETYTOTAL and SLEEPQUALITYTOTAL developed a correlation with the dependent variable, WELLNESSTOTAL, at $p < .05$ level. The results from our study coincide with findings in previous studies, them being that sleep disorders, including daytime sleepiness and poor sleep quality, could increase the risk for common mental disorders (Concepcion et al., 2014). Our study did not see a strong correlation with mental illness and Daytime Sleepiness, but instead saw the correlation we wanted to see with irregular sleep cycles affecting their WELLNESSTOTAL scores, showing significant support for our hypotheses.

Limitations

Although the use of Google Forms was convenient for our study under the current circumstances, it did provide some limitations. First, our sample size was lower than what we aimed to have (n = 115). In addition to this some of the questions on our survey were misunderstood or left unanswered. For this reason, some responses were deleted and others were replaced with the average answer for that particular variable. Further research should examine the possibility of rephrasing certain questions in order to ensure that they are easy to understand. This would increase the amount of usable data and validity of the study. Further research could run the study twice on two different college campuses and compare/contrast the results. For example, the study could be run at an Ivy League University and a community college and see if there are any noticeable differences.

Implications

Our results are useful in understanding college students who represent a vulnerable population. Sleep is only one factor affecting mental health, but with this information we find it is important to provide more mental health resources.

References

Available upon request