



Depression and Sleep Quality of people at Faculty of Pharmaceutical Sciences, Burapha University, Thailand 2019

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ABSTRACT

BACKGROUNDS : Evidence examining relationship between lack of sleep and depression is well-established. Nevertheless, only a few studies investigating the quality of sleep among students, employees and lecturers have been conducted. As a result, this study aimed to 1. compare sleep quality and depress between student, lecturer and employee 2. investigate the relationship between insomnia (sleep quality) and depression among three groups student, lecturer and employee of The College of Pharmacy, Burapha University, Thailand 2019.

METHODS : A cross-sectional survey study via face to face interview and questionnaire was performed. Population was people of College of Pharmacy, Burapha University 2019. Sample size was calculated by Cohen's table 1977. The α is set to 0.05, β 0.20, power 0.80, effect size 0.25 $n= 52$ in each group. Probability simple random sampling was executed to collect data. Instruments: 1. Pittsburgh sleep quality index (PSQI) was used to investigate insomnia in 7 aspects namely: 1) Subjective sleep quality; 2) Sleep latency; 3) Sleep duration; 4) Habitual sleep efficiency; 5) Sleep disturbances; 6) Use of hypnotic agent; and 7) Daytime dysfunction. 2. Hamilton Depression Rating Scale (HAM-D) was employed to examine depression 3. Socio-economic status and medicine use data were assessed by using a single item, unidimensional questions. ANOVA and Chi Square were employed to analyze data.

RESULTS : The percentage of female in lecturer, student and employee group were 66.67%, 76.92% and 66.67%, respectively. Three groups were not significantly different in the average amount of coffee and alcohol consumption. 9.99% of lecturers used drug for sleeping: Melatonin, CPM and diazepam and 3.33% of students used diazepam. Lecturer group was the poorest sleep and most depress than the others ($p=0.02$, 0.04, respectively, ANOVA). Sleep quality was significantly associated with depression ($p=0.00$, Chi Square).

CONCLUSIONS : We proved that Sleep quality was significantly associated with depression.

INTRODUCTION

A cross-sectional survey study via face to face interview and questionnaire was performed. Population was people of College of Pharmacy, Burapha University 2019. Sample size was calculated by Cohen's table 1977. The α is set to 0.05, β 0.20, power 0.80, effect size 0.25 $n= 52$ in each group. Probability simple random sampling was executed to collect data. Instruments: 1. Pittsburgh sleep quality index (PSQI) was used to investigate insomnia in 7 aspects namely: 1) Subjective sleep quality; 2) Sleep latency; 3) Sleep duration; 4) Habitual sleep efficiency; 5) Sleep disturbances; 6) Use of hypnotic agent; and 7) Daytime dysfunction. 2. Hamilton Depression Rating Scale (HAM-D) was employed to examine depression 3. Socio-economic status and medicine use data were assessed by using a single item, unidimensional questions. ANOVA and Chi Square were employed to analyze data.

METHOD

Socio-economic status and medicine use data were assessed using a single item, unidimensional questions. Insomnia (sleeping quality) was measured by validated Pittsburgh sleep quality index (PSQI)-Thai version. Depression symptoms was measured by the validated Hamilton Depression Rating Scale (HAM-D or HDRS)-Thai version. Analysis of Variance (ANOVA) was used as a decision tool to assess the significance of means different of many aspects including age, BMI, caffeine intake, and amount of alcohol intake. Chi Square was used to find association of two non-metric variables. Chi Square was triangulated analysis to identify the association and correlation of these 2 major constructs.

RESULT

TABLE 1. Baseline characteristic of people in Faculty of Pharmaceutical Sciences, Burapha University, Chonburi, Thailand

Baseline Characteristic	Lecturer (n=30) %	Student (n=30) %	Employee (n=52) %
Gender			
male	10 (33.33)	12 (23.08)	10 (33.33)
female	20 (66.67)	40 (76.92)	20 (66.67)
Age (years)	37.27 ± 7.68	20.42 ± 1.53	33.86 ± 7.99
Weight (kg)	59.74 ± 11.49	57.85 ± 12.23	60.7 ± 12.06
Height (cm)	1.64 ± 0.07	1.61 ± 0.09	1.63 ± 0.09
BMI (kg/m ²)	21.79 ± 2.5	22.22 ± 4.1	22.78 ± 3.71
PSQI	6.07 ± 2.74	6.96 ± 2.98	5.86 ± 2.63
HAM-D	8.48 ± 4.89	10.87 ± 6.3	8.71 ± 5.85

TABLE 2. Percentage of sleep quality in each group

Group	Insomnia (poor sleep)	
	Frequency	Percent
Lecturer	19	63.33
First year student	6	46.15
Second year student	4	30.77
Third year student	4	30.77
Fourth year student	4	30.77
Employee	14	46.67

TABLE 3. Percentage of depression in each group

Group	Depression		
	Severity	Frequency	Percent
Lecturer	Normal	16	53.33
	Mild	8	26.67
	Moderate	4	13.33
	Severe	1	3.33
	Very severe	0	0
first year student	Normal	7	53.85
	Mild	3	23.08
	Moderate	1	7.69
	Severe	2	15.38
	Very severe	0	0
second year student	Normal	7	53.85
	Mild	1	7.69
	Moderate	4	30.77
	Severe	0	0
	Very severe	1	7.69
third year student	Normal	2	15.38
	Mild	5	38.46
	Moderate	6	46.15
	Severe	0	0
	Very severe	0	0
fourth year student	Normal	4	30.77
	Mild	5	38.46
	Moderate	2	15.38
	Severe	0	0
	Very severe	2	15.38
Employee	Normal	14	46.67
	Mild	10	33.33
	Moderate	2	6.67
	Severe	1	3.33
	Very severe	1	3.33

TABLE 4. Pearson Chi-square value

	Value	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.88	0.000134
Likelihood Ratio	26.33	0.000027
Linear-by-Linear Association	21.34	0.000004
N of Valid Cases	107	

TABLE 5. Comparison of mean of BMI, coffee, alcohol between and within groups

		ANOVA			
		Sum of Squares	Mean Square	F	Sig.
BMI	Between Groups	12.68	6.34	0.48	0.62
	Within Groups	1340.75	13.27		
	Total	1353.43			
Coffee	Between Groups	0.07	0.04	0.15	0.86
	Within Groups	26.64	0.24		
	Total	26.71			
Alcohol	Between Groups	0.45	0.23	1.55	0.22
	Within Groups	15.97	0.15		
	Total	16.43			

CONCLUSION

H_0 was rejected. This study showed that insomnia is association with depression of people at Faculty of Pharmaceutical Sciences, Burapha University.

SUGGESTION

1. Increasing the sample size of participants should be considered.
2. Assessment duration should cover all the period of semester.
3. Further studies should be conducted in all the Faculty of Pharmaceutical sciences in Thailand.
4. Exclusion criteria of anti-depressive drug uses should be included.

REFERENCE

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