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# Factors Related to Sleep Quality of Senior Nursing Students

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# Factors Related to Sleep Quality of Senior Nursing Students

Kathleen Thompson, PhD, RN; Bonnie Callen, PhD, RN and Ken Phillips, PhD, RN

## Background

Experts recommend 7-9 hours of sleep per night for optimal functioning.

Students in college are well-known for burning the midnight oil resulting in altered sleep patterns.

Nursing students are especially at risk for altered sleep due to a demanding curriculum and schedules requiring early morning clinical experience.

Yet little is known about sleep patterns and factors that are related to sleep for undergraduate nursing students.

Several factors have been shown to be related to sleep quality including stress and depression.

## Purpose

To describe the sleep quality of undergraduate nursing and explore factors that may be related to sleep quality including sleep hygiene, sleepiness, stress, happiness, fatigue, depression and total hassles.

## Methods

BSN students enrolled in an undergraduate nursing course were recruited to participate at the beginning of the semester

After obtaining informed consent, students completed a:

- Demographic questionnaire (age, gender)
- The Pittsburg Sleep Quality Index (PSQI)—total scores range from 0-21, scores <6 indicate good quality sleep
- Self-developed sleep hygiene questionnaire (SH)—total scores range from 0-23 with higher scores indicating poorer sleep hygiene
- The Sleepiness scale (SS)—total scores range from 0-21 with higher scores indicating problems with sleepiness
- The Centers for Epidemiologic Studies-Depression Scale (CES-D)—total scores range from 0-60, scores >16 indicative of clinical depression
- The Perceived Stress Scale (PSS)—total scores range from 0-40 with higher scores indicating more stress
- The Daily Hassles Scale (DHS)—total scores range from 51-216 with higher scores indicating more hassles
- The Global Happiness Scale (GHS)—total scores range from 4-28 with lower scores indicating more happiness
- The Fatigue Scale (FS)—total scores range from 0-26 with higher scores indicating greater fatigue



## Results

Sample ranged in age from 20-49 ( $\bar{x}$ =22.3,  $sd$ =3.3); 83% were 20-22 y.o.

148 Females (86%) and 24 males.

Less than half of the students (48%) reported quality sleep; 74% had PSQI scores of 7 or less  
22 (13%) of the students had scores > 16 on the CES-D indicating a potential for clinical depression.

Frequency Data			
	Range	Mean	SD
PSQI	0-16	5.63	3.2
SH	2-19	9.8	3.2
SS	1-19	8.5	3.4
CES-D	2-39	10.1	6.6
PSS	5-33	18.6	5.9
DHS	51-160	88	19.1
GHS	8-28	19.2	4.3
FS	0-29	8.6	6.1

## Pearson Correlation Between Sleep Quality and Research Variables

	Corr.	p value
Sleep quality and sleep hygiene	.246	.001
Sleep quality and sleepiness	NS	
Sleep quality and depression	.374	.000
Sleep quality and stress	.213	.005
Sleep quality and daily hassles	.169	.028
Sleep quality and happiness	NS	
Sleep quality and fatigue	NS	

## Conclusion

The majority of the students reported good to fair quality sleep at the beginning of the semester. It is not clear if these results would be similar during and at the end of the semester.

There were significant correlations between sleep quality and sleep hygiene measures, stress, depression and the total amount of daily hassles as anticipated.

Further studies should determine if interventions to improve related variables could improve sleep quality.