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Кафедра нормальной физиологии

Фонд оценочных средств  
ОТЧЕТ по производственной  
практике (научно-  
исследовательская работа)

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## REPORT

### ON MANUFACTURING PRACTICES (RESEARCH WORK)

**Topic: EPWORTH SLEEP QUESTIONNAIRE**

**Performed by**

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**Grade: 3 rd course; Group 35**

**Specialty: 31.05.01 General medicine**

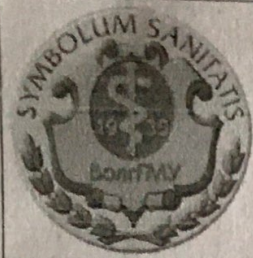
**Checked by : RODION KUDRIN**

*«Хорошо» (84 балла).*

*См. замечание  
в течение работы.*

*Р.А. Кудрин (Р.А. Кудрин)*

*12.11.2019.*



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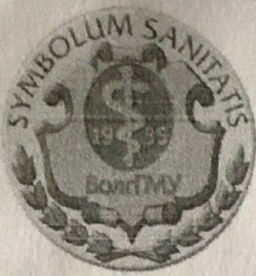
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## Report content

- **Introduction**
- **Literature review**
- **Method of research**
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## INTRODUCTION:

Sleep plays an important role in physical and mental health in our life. Sleep is important for our body to repair and rejuvenate, and be fit for another day. Getting quality sleep is also important. Not getting adequate sleep is the most common cause for day time sleepiness (Murray W.J., 1991).

According to American academy of sleep medicine, students who aim to score higher marks are an aware of the importants of sleep. So they be awake whole night and study which leads to their decreased performance in day time (American Academy in sleep medicine – AASM).

There is an important need for a simple test to measure a person's general level of sleepiness to differentiate between number of disorders associated with day time sleepiness and provide suitable solution for the sleep disorders (Micheal J.T., 2012).

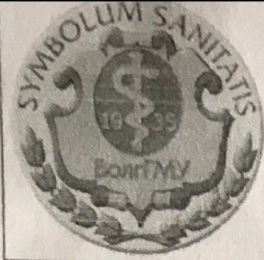
Sleep disorder of 21<sup>st</sup> century people are mostly caused due to distraction according to there needs and necessary. Mostly students gets distracted due to more usage of social network and stay late night. This leads to change their sleep cycle and results in day time sleepiness (Richard M.B., 2014)

## LITERARY REVIEW:

In new method of reviewing day time sleepiness gives that the method of assessment of sleep can be classified according to different criteria. One of the subjective method of assessment is Sleep questionnaire (Hirshkowitz M., 2017).

Most of the subjective questionnaire vary in their specificity and sensitivity. Usually subjective methods have higher sensitivity vary as objective methods have high specificity. Thus it is recommended to combine both objective and subjective methods to measure the sleep propensity (Ibanez V., 2018).

Hypersomnia, it is a condition of daytime sleep in which people have trouble of staying awake during day time. It's a rare condition, people with this problem can



fall asleep at time ,like during work ,lecture or during while the drive (Imran M., 2016).

### AIM OF THE STUDY:

To measure the sleeping tendency of different people with simple and standard questions using the example of 10 medical students (Both the sex) of Volgograd State Medical University.

To explain the correlation between their sleep cycle and day time sleepiness and how one affects the other.

### TASK OF THE STUDY:

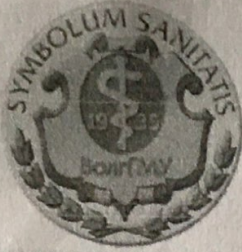
1. Collect information about different people's sleep cycle.
2. Collecting answers for the questionnaire.
3. Analyzing the results of the questionnaire.
4. Calculating the standard deviation of the result.
5. Comparing the result with normal ESS scores.
6. Providing practical recommendation using Epworth Sleepiness Scale.

### OBJECT OF THE STUDY:

Epworth Sleepiness Scale questionnaire .

### SUBJECT OF THE STUDY:

10 Medical students of Volgograd State Medical University including 6 girls and 4 boys.



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### RELEVANCE OF THE STUDY :

Comprehensive assessment of daytime sleepiness.

### PRACTICAL SIGNIFICANCE:

Obtaining results and using the results as a self diagnosing tool to predict sleep disorders.

### METHOD OF RESEARCH :

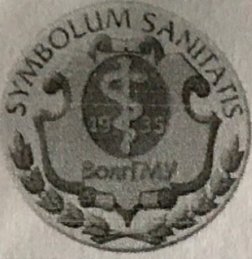
### CONCEPTUAL BASIS OF EPWORTH SLEEPINESS SCALE :

Sleep propensity is defined as ability to transform from wakefulness to sleep. Whether a person is awake or sleep depends on different factors such as how long they have slept the previous day, what the person is doing at that specific time, their posture (sitting or lying), their surroundings at that time etc. For example, some people are more susceptible to sleep during travelling and some people sleep while watching TV. Likewise people are more susceptible to sleep in lying posture but less susceptible to sleep in standing posture. Such lying posture are meant to have high somnificity.

A person's usual sleep propensity in the same situation can be considered as their situational sleep propensity and it is specific for each and every person. Thus the epworth sleep questionnaire consists of 8 different questions of situations that differ in their characteristics (in somnificity and sleep inducing properties). The ESS scale thus included only 8 situations that are very common to have less confusion while answering.

### QUESTIONS USED IN EPSWORTH SLEEP QUESTIONNAIRE:

The questions used in the epworth sleep questionnaire are of high somnificity, which people face in day today life. But if a person is sleep deprived then he will have high chance to sleep in the situations of low somnificity and likewise if a



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person has slept adequately he has low chance of sleeping in such situations of high somnificity. Thus if the person is sleep deprived, the ESS scores will be high and vice versa.

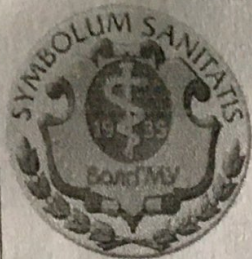
### SCORING SYSTEM IN THE EPWORTH SLEEP SCALE :

ESS Score is a measure of a person's susceptibility to sleep in those 8 situations. The ESS asks the person to rate His/her chances in 8 different situations of different somnificity and sleep inducing properties using a four range scale 0-3. ESS score can vary between 0 – 24 depending on different variables.

### RANGE OF ESS SCORES :

- Range of normal ESS score 0-8
- Range of mild ESS score 9-12
- Range of moderate 13-16
- Range of severe more than 16

QUESTIONS	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
SITTING AND READING	2	1	0	1	1	2	1	3	3	0
WATCHING TV	3	1	1	3	0	0	0	2	0	2
SITTING, INACTIVE IN PUBLIC PLACE	0	1	0	3	0	1	0	1	2	0
AS A PASSENGER IN A CAR FOR HOUR WITHOUT BREAK	1	0	1	0	1	1	1	1	2	3
LYING DOWN TO REST IN AFTERNOON WHEN CIRCUMSTANCES PERMIT	3	2	2	3	2	3	3	3	2	3
SITTING AND TALKING TO SOMEONE	0	1	0	0	0	0	0	0	0	0



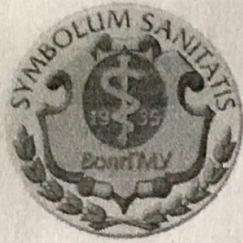
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SITTING QUIETLY AFTER A LUNCH WITHOUT ALCOHOL	3	2	2	3	3	0	3	1	1	3
IN A CAR, WHILE STOPPED FOR FEW MINUTES IN TRAFFIC	0	0	1	0	0	1	0	1	0	0
TOTAL SCORE	12	8	7	13	7	8	8	12	10	11



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NAME	SEX	AGE	DURATION OF SLEEP	SCORE	ESS
1.ALLEN	M	21	7 HOURS	12	MILD
2.ASHISH	M	23	8 HOURS	8	NOR
3.AKSHATA	F	23	9HOURS	7	NOR
4.RAHUL	M	21	6.5 HOURS	13	MOD
5.PRIYANKA	F	20	9 HOURS	7	NOR
6.PEARL	F	23	8 HOURS	8	NOR
7.MINAL	F	25	8 HOURS	8	NOR
8.SHIKHA	F	26	7 HOURS	12	MILD
9.NARESH	M	25	6 HOURS	10	MILD
10.SURYA	F	23	7 HOURS	11	MILD

COLLECTED INFORMATION :

- COUNT : 10
- SUM : 96
- MEAN ESS SCORE : 9.6
- STANDARD DEVIATION : +/- 2.15

*Diagram ?*





### RESULTS:

On the basis of this study with 10 Medical students, the data shows that 50 % of them are in normal level of ESS scale, 40 % of them have mild level of day time sleepiness, 10 % of them have moderate level of day time sleepiness. The Mean ESS score of 10 students are 9.6 With the standard deviation of 2.15.

Comparison between duration of sleep and day time sleepiness reveals that less the duration of sleep more the day time sleepiness or increased ESS score.

Comparison between genders showed no definite difference in the score.

### CONCLUSION :

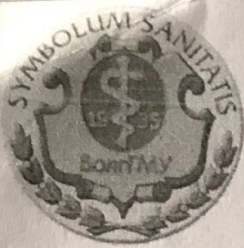
There are severe stressful factors in Medical students who are studying abroad. Because they have to spend more amount of energy in short period of time and students sacrifice their sleep to score higher marks. Lack of sleep leads to lack of energy and negative effects on their physical and mental health. The mild increase in ESS score shows us that a significant number of students are having disturbed sleep.

### PRACTICAL RECOMMENDATION:

The results shows an increase in need for students to focus on sleep .It is important to aim for good mental and physical health by monitoring the sleep cycle, quality and quantity of sleep during their studies.

Preventive measures must be taken to regulate their habits of sleep to avoid development of sleep disorders.

Time management workshop can be held in medical universities for students to overcome this problem.



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*Incomplete information  
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