



Федеральное государственное бюджетное
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высшего образования
«Волгоградский государственный медицинский
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Российской Федерации
Кафедра нормальной физиологии

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

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REPORT ON MANUFACTURING PRACTICES (RESEARCH WORK)

Topic: The influence of academic performance by sleep wake cycle and quality of sleep.

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Grade: III **Group:** 35

Specialty: General Medicine.


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кор. (858)

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	<p>Федеральное государственное бюджетное образовательное учреждение высшего образования «Волгоградский государственный медицинский университет» Министерства здравоохранения Российской Федерации</p> <p>Кафедра нормальной физиологии</p>	<p>Фонд оценочных средств ОТЧЕТ по производственной практике (научно- исследовательская работа)</p>	<p>- 2 -</p>
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The influence of academic performance by sleep wake cycle and quality of sleep

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Introduction:

Some factors suggested by study like, demands of social behaviour and academic appearance, working and earning in free time and not regular class time, disturbs the waking up-sleeping pattern of students of college. In these studies, we thoroughly noted sleeping-waking up cycle and the academic performance. We choose 20 students studying in medical college (same number of boys and females, average age of them was 20.9 years). (Alhaqwi, A.L.,1974).

Every student was from the same medical college, attending from Monday to Friday. Each of them answered a wake-sleep assessment questionnaire. The relationships between wake-sleep pattern and academic performance were analysed. These results suggest that chronotypes influence quality of wake-sleep pattern and non regularity of wake-sleep pattern, as well as deprivation of sleep, affects the learning tendency of students of college. Suggestions from studies in laboratory and survey are that a number of factors like, social and academic demands, influence on wake-sleep pattern of healthy students of college. (Abdulghani., H.M, Alrowais.,1974)

Other causes study schedule along with work affect duration of sleep and wake-sleep pattern regularity. The circadian pacemaker controls the wake-sleep pattern and is synchronised with dawn-dusk cycle and with social contacts. The present work, we examine wake-sleep patterns of group of students, and the effect of wake-sleep irregularity and individual characteristics of an individual on the quality of sleep and academic performance. (Aldabal.A.S.,2000).

The research aimed to investigate the med-school learners undergo sleep during the day which will reflect on their results in the academic. The students whom we questioned had given a genuine answers that had been used for our research work and we made plotted and entered in a graphical representation. As a physicians advice the sleep is a major factor for a great memory, which will improve the process of learning, gives away the body tiredness and relaxes the muscles and makes the moods of the students stable. (L.Kecklund, G. Sleep disturbances.,1985).

We are going to do the work by the guidance of the professor's work in the normal physiology department of our university VOLGOGRAD STATE MEDICAL UNIVERSITY.



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Literature review:

Results from Valdez et al suggested that prolonged sleep during weekends are due to reduction of sleep during workdays, whereas the delay of bedtime seems to be associated with a tendency of the human circadian system to maintain a delayed phase. **(Valdez Et Al, 1996)**


Machado et al. showed that the tendency of phase delay on weekends was differently expressed according to study's schedules and work. They also suggested that the time of awaking on weekends is decided by schedule of studies, work and other influencing factors. **(Machado Et Al, 1998)**

In 1988 someone suggested that the non-synchronisation of circadian rhythms causes troublesome increase of stress and Jean-Louis et al showed that students who fell asleep in school experienced substantially greater negative mood states than those who did not. **(Jean-Louis Et Al, 1988)**

The importance of the wake-sleep pattern for the physical, mental and socio public health was presented by Pilcher and Ott. The similar studies suggested that students experiencing too much stress like, academic demands, had non-regular wake-sleep patterns and were presumably not as alert as they should be. In. Other studies have shown that students without sleep deprivation. **(Pilcher and Ott, 1998)**

Sleep deprivation or sleep fragmentation may impair the consolidation of newly learned information and the formation of permanent memory trace during sleep. **(Giuditta Et Al, 1995)**

We should make a good capacity of understandable on the basic knowledge of sleep diseases in their trainings due to the course they study in medicine, more essential for the students of medical college. This is provided to increase personal knowing of learners. While they study about the sleep disorders in med-school. Which may also help for their own health condition and they will take care of the student performance in the academic. They will be getting self-awareness on the disorders of sleep and general studies gain them a knowledge that which appear and factors are more for the sleep disorders, so improving the education style may be helpful in beneficial contribution & invention in the world. Hereby we should give them a sample evidence for condition of the problem, there we should start a detailed study in the criteria to explain & expand ideas to the innovation to educate more peoples for the education based on the sleep for those who are still in med-school, and to identify


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those who undergo of this risk, and to make the life of student better. **(Holsberg, C.J., Rosen, C. John, F. J., 1994).**

Now we understand the important to know how much we need sleep. If we are not sleeping properly we should know the future problems we will get lack of rest. The expansion of disorders of sleep and also the distances that occur during sleep has an bad reflection on the academic side. This is the main goal to go through the work on the literature according to sleepiness disorders, work due to that the problems of sleep may occur, the college should give awareness of sleep, This is about UG medical school learners sleep disorders. This are recorded and mentioned on sleep disorder awareness, it is accompanied for the medical student sleep which is poor and make impact in the problem which arises due to sleep & accompany & brings the performance on the study, state of ability to perform physiological functions normally. These makes the trainers in the med-school to make a literature and professor awake to make necessary procedure to bring up the student's life in a better way. Identify the factors that influence the learners in the med-school. The needed thing in the life is sleep. **(Carskadon, M.A., Dement W.C., 1997).**

The learner and the trainer need to improve outcome among the peoples they treat. This factors are classified as two such as environmental and inner body factors. The bio-resources (metabolic) like hyper arousal in the ANS and anterior gland of pituitary hypothalamus & axis of adrenal gland over activation factor for predisposing; the events which leads to increase stress level due to problems in the relations (illness of relations), due to tests of semester may provide sleep abnormalities for precipitating, worries of future may lead to abnormalities of sleep which may lead to increase of psychological & tension & pressure. The problems lead to sleeping abnormalities like REM (rapid eye movement), blabbering during sleep (this is due to thinking of some problems before sleeping), sleepwalking (this is due to thinking of some work before sleeping). Pre-sleep cognition such as rapid thinking, planning, being stressed worrying and analysing about worries at the time of rest may lead to the disorder named insomnia. **(P. R., keenan, S .guidelines for the multiple sleep latency test MSLT., 2014).**

This review is documented for the future reference of med-students studying in foreign (because foreign learners faces more negativities than the students of the same origin of the country, because of staying away from home) they undergo more stress and heavy work load on them. So, we use quality sleep awake scale to determine the med-learners capacity of sleep & to provide lectures based on the disorders of sleep lack of rest.

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Materials and Methods:

This cross sectional survey is conducted by me in the area of VOLGOGRAD STATE MEDICAL UNIVERSITY. This study is conducted by me during the period of my winter semester in the month of September 2019. All my colleague students who are studying in general faculty medicine in the year of 2 to 6 have been invited to participate in this study. A total number of students agreed to participate is 12 form who all are invited. The ethical approval was obtained from the college of medicine ethics committee of university. Group leaders from all the level of courses had facilitated in the area of data collection. The questionnaire was prepared to know about the information about a wake-sleep assessment questionnaire. I have included the items which are based on the previous survey and according to worldwide accepted scales. It is totally having 3 main parts. The first part of the questions consist of the enquiry about living area of the person, academic performance, pattern on which basis the candidate is sleeping, amount of intake of caffeine, bad habit like smoking, time which the person is scheduled to do his daily basic needs and usual habits. In the second part; this part consist of the world wide accepted scores the sleep duration.

The scale which I took for experiment focus on the studying students in which they falling in the bed to sleep in 8 various types and they were given score significantly (0- not dozed, 1- light possible for dosage, 2- medium possibility for dosage , 3- more the medium possibility of dosage). The total scoring system give a total score of 0-24 and the person or student who got score more then 10 are calculated and will come under the group who all are having less sleep duration at night. The persons who got marks above 3 mark are coming under the category of increased scoring persons. A bunch of 12 students were taken under the measuring for the project and I took a certain time to compile the question needs to be asked during the experimental project.

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Quality sleep scale:

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The Quality sleep scale is a method used to analyse the student's disorders of sleep. The scale contains 0-3 ballpoints in which we calculate the total sum and to know the scale of sleep problems the student undergoes. Let us know how we use the ESS.

The ballpoints are marked as the procedures that are created by the researchers, they are

- 0 - THERE IS NO POSSIBILITIES OS SLEEP.
- 1 – LITTLE CHANCE OF SLEEP / DOZE.
- 2 – MEDIUM CHANCE OF SLEEP / DOZE.
- 3 – MORE CHANCE OF SLEEP / DOZE.

The following questions are used for the Research work on the med-school learners. Such as

- Sleep occurs during sitting and during reading
- Sleep occurs during TV watching
- Sleep occurs during inactive sitting in a common place as a listener
- Sleep occurs during travelling in a car with no break for an hour
- Sleep occurs during afternoon while lying for the rest
- Sleep occurs during speaking or sitting with friends
- Sleep occurs during after lung while quietly sitting with no alcohol intake
- Sleep occurs during waiting for the signal in the traffic as a driver

This are the questions we ask to the med-school learners and we provide a detailed report and provide them a recommendation to overcome the risk.

The normal values of scale used for QSS are,

- 0-5 low normal DS
- 6-10 High normal DS
- 11-12 Mild excess DS
- 13-15 Moderate excess DS
- 16-24 severe excess DS

The total scoring system give a total score of 0-24 and the person or student who got score more then 10 are calculated and will come under the group who all are having high sleep in time of afternoon. The persons who got marks above 3 mark are coming



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under the category of increased scoring persons. A bunch of 12 students were taken under the measuring for the project and I took a certain time to compile the question needs to be asked during the experimental project.

Results of report:

Name of table

Questi ons	ARU N (M)	RA JA (M)	DEE PA (F)	KAVI THA (F)	PRI YA (F)	RAG UL (M)	RA JI (F)	KAV IN (M)	RI O (M)	RA M (M)	JA NA (F)	A GI (F)
Age of the student s	22	21	23	21	20	19	22	21	24	20	22	19
Sitting & reading	3	0	2	1	1	2	3	2	3	0	1	2
Watchi ng TV	1	2	0	3	2	3	1	3	2	1	0	3
Sitting inactiv e in a public place	0	3	3	0	2	1	3	0	1	2	2	0
Travell ing in a car for an hour	2	2	3	1	2	1	2	1	3	0	3	1
Lying for rest in afterno on	1	0	2	3	0	2	0	1	3	2	0	3



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Sitting and talking to someone	3	1	2	2	2	3	2	1	3	1	3	0
Sitting quietly after lunch with no alcohol intake	2	3	3	2	3	0	3	3	0	3	2	3
Waiting for a signal in traffic as a driver	1	2	1	0	3	2	1	0	2	1	0	1
Total:	13	13	16	12	15	14	15	11	17	10	11	13

The sleep quality table 2

This table shows the result of the QSS and the student's answers.

These are the results we got by asking questions to the med-school learners and by their answers we made this report.

RESULTS CALCULATED:

TOTAL STUDENTS: **12.**

SUM OF TOTAL 'QSS': **160**

MEAN ESS SCORE: **13.**

STANDARD DEVIATION: **(+/-2.15).**

GRAPHICAL REPRESENTATION:

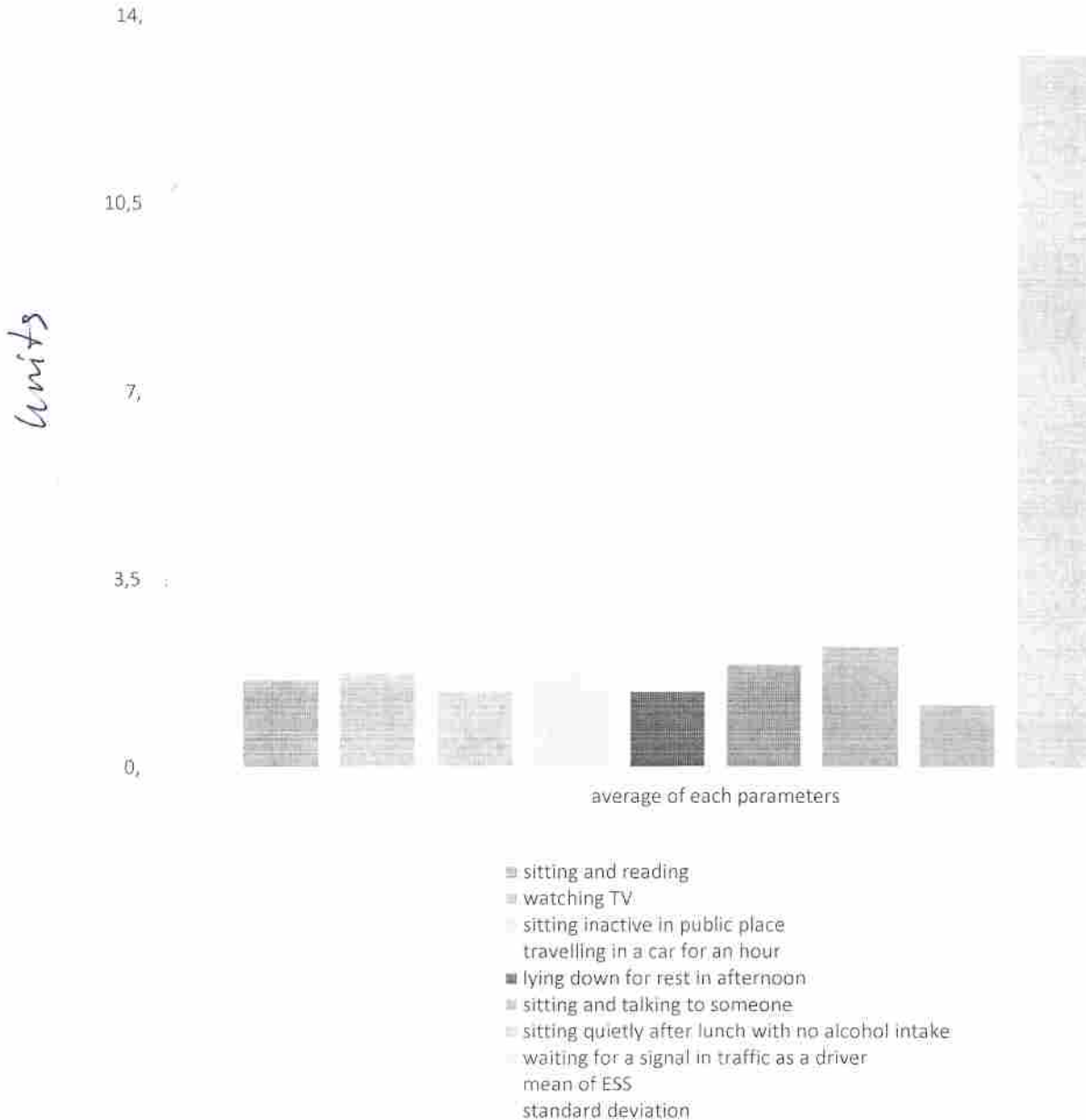


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result of research



Summary:


The common practice in medical and learning skills in medicine needs learners to gain large amount of instructions were provide in brief periods and many learners are

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pushed to donate the time of sleeping to full-filing the requirements in the side of performance in academic carrier. The high level ESS scores denoting the persons and they had disturbance in cycle of Circadian that provokes the persons to be tired & pathological pairing of the functions. There should be some arrangements for the prevention from the disorder for the proper cycle of resting period and to get away from negative results of low sleeping period. Following a proper timetable for management of work may give hand in the daily life of students studying in medical university.as you guessed, it held at a VOLGOGRAD STATE MEDICAL UNIVERSITY; that's why we, concluded score is not to compared and made generalisation to the all healthy learners in science department. For the future research with the help of multiple counts of learners warranted. The results of the report shows the highest progression requires for learners population for concentrating in the time of taking rest and sleeping. Our premier goal to provoke psychological and physical fitness of the learners by maintaining the population of learners to focus in the time of taking rest and also sleeping in the same time of attaining a maximum level of grade and provoke to action or active, life should be healthy. The main cause is stress or pressure leads to disorders in sleeping. Learner's were shown/exposed for the many kinds of factors which is present in their lifecycle, whereas the more depressed and affected by sleeplessness they are social helpers, loan-givers, helpers to keep the surroundings clean, learners, problems arises against health or a partnering/combining each other to make the med school learners daytime sleepiness.

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