



Effect of Sleep on Productivity

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ABSTRACT

The main objective of this study is for the exploration of different effects of sleep on the productivity of human being like performance on his/her job or performance in academics.

Sleep is one of the major fundamental psychological process which will place a very important role in determining the performance of human beings. This research tentatively explores the relationship between productivity and sleep which will focus on the impact of quality of sleep, Duration of sleep and various aspects of productivity patterns which will include creativity emotional regulation and also performance in the workplace. This research also examines various consequences of shift of work sleeping disorders and sleep deprivation on the productivity of human beings which highlights the societal and economical implications of the sleep related deficits in productivity. This analysis of the research comprehensively underscores the major importance of sleep in increasing the productivity and also suggests future research avenues and implications practically for the individuals and as well as organisations in order to maximise the human potential.

A total of 160 Responses were recorded through an online questionnaire and the responses were tested through stepwise regression, analysed Different factors which were dependent as well as independent and finally done principal component analysis. In order to help people for their problems in sleeping and also to increase the productivity, The knowledge of those Variables which were affecting the sleep are very important for any individual or organisation. So sleep plays a very important role in the productivity of any individual.

KEY WORDS: - Sleeping Disorders, Psychological process, Productivity, Performance.

INTRODUCTION

Sleepy is one of the most important fundamental biological process which will occupy a major portion in our lives. Sleep is Have any important for any human beings health and any loss of sleep will not only make sleepy throughout the day but it is also a reason and possible factor for the disease named Alzheimer. During sleep our body undergoes some of the most essential restorative process and also our brain consolidated all the memories during sleep which will rejuvenates different challenges of the waking world and also it possesses emotions during sleep. The effect of loss of sleep will not only affect physical performance but also help do the sour mental stability where we lose our health performance and many other important activities of our daily lives. The different relationship between sleep and also performance have been throughoutly studied in different various fields which will include medicine psychology human science education and also business. The main reason for this study was to obtain the significant effect of sleep on humans productivity and also performance.

In this fast moving era people are sacrificing their Sleep and there are relentlessly pursuing without a sleep and as a consequence of all these sacrifices affects not only our productivity but also our performance as well as well being of human beings.

According to a study by (Pelayo and Guilleminault, 2009) an average adults sleep for around 7 hours everyday and since 19th century it has been decreased by two hours per night 2010 the same organization (National Sleep Foundation has been found out that the average sleep by us adults is around 7 hour 18 minutes but actually they are sleeping only for around 6 hours 40 minutes every day and the main reason for this is a sleep deprivation which is of three types namely total sleep deprivation sleep fragmentation and finally partial sleep deprivation according to (Drummond and mc Kenna 2009). There are some of the reasons for losing of Proper Sleeping techniques of human beings on one such reason is shift of work as some of the human beings were doing their work in night shift time and they are abstaining from proper sleep during the night which will impact heavily on their health and social well being and also students who work during night time has been significantly lowered their academic performance. In a research by a private institute it is shown that around 11.85% of students who are studying undergraduates in US were found to be having delayed sleep faced syndrome according to a research conducted by (Brown Sopper and Buboltz, 2001). Because of Loss of Sleep, Academic Performance also Got reduced significantly as the loss of Sleep was Negatively Correlated along with the Performance in the Academics which research is Conducted by Curcio, Ferrara and Gennaro (2006). Even Job Performance also got Affected because of this Sleep Loss as it will impact on different behaviours which is related to the job as per (Babin & Boles, 1998). The Sleep that is Required by Humans varies from person to person. But on an average, Adults need 7-9 Hours of Sound Sleep but because of lack of Sleep they will not perform according to their strengths.

LITERATURE REVIEW

You play a crucial function in the academic context of any research work, which will give some of the most significant thorough understandings of the knowledge which is available in all the resource discoveries and also theories which are relevant to the specific topic. The backdrop and contextualization, identification of any specific research paper gaps, avoidance of redundancy, and theoretic framework all depend heavily on the literature review.

Some of the best research literature on the topic Effects of Sleep on Productivity are:-

- The Effects of the deprivation of Sleep on the School and College Students is a Literature which is Written by the Authors namely Ashley M. LaRochelle in the Year 2021 which explains about the Effects of Sleep on the Performance of Students, Moods of Students after they were deprived from sleep.
- The Sleep Deprivation effects on the Productivity of Individuals is a Literature which is written by the Author Jessica L. Caudill in the Year 2019 which explains about the variety of Settings which will affects the Productivity of Individuals which includes the Workplace, Sports and also Schools & Colleges.
- The Sleep Deprivation effects and Impacts on the Work Performance is a Literature which is Written by the Authors Named Sarah J. Cousineau, et al in the year 2018 which explains about the Impact of The Sleeplessness on the work performance of any individual.
- The productivity and Sleep Relationship which is Written by Alina A. Roman, et al. in the year 2017 which had significantly examined the Relationship between the Variables Productivity and also Sleep Relationship where there is a Positive Relationship between the Sleep and also the Productivity
- The Sleep Deprivation Effects on the Performance and also the Cognitive Function is a Literature which is Written by the Michael P. Murphy in the year 2016 which explains about the Different Cognitive Functions which will effect on the Productivity on the Individuals who are Deprived of the Sleep where in a Study conducted by one of the University on its Students, It is Proven that the Deprivation of Sleep has Caused Immense Effects on the performance of any individual or organisations in total.
- Leadership and sleep is a literature written by Johnson J A Johnson JL in the year 2014 which explains about the decline in the leadership qualities because of sleep deprivation Which is caused in any of the individuals or organisations.
- Sleep and safety is a literature which is written by Charles M Czeisler And William C Dement in the year 2000 which explains about the significant relationship between sleep and safety where the authors had found out that the deprivation of one of the major contributor to all accidents around the world which occurred on the road and because of this deprivation individuals cannot take pic and stable decisions which are most accurate during a driving and involves in accident.

OBJECTIVES OF THE STUDY

There are various objectives On the topic of the effects of sleep on productivity which will include the following objectives. They are:-

- In order to summarise the evidence which is the scientific relationship between productivity and sleep
- In order to identify different ways in which deprivation of sleep can disturb the productivity
- In order to discuss the numerous benefits of getting enough sleep for the sake of productivity
- For providing a different practical tips for the sake of improving quality of sleep and also quantity of sleep
- For the sake of promoting the awareness among the people about the importance of sleep for the sake of productivity in the workplace as well as society as a whole
- In order to investigate the significant relationship between sleep duration and also the productivity of any human being
- For the sake of evaluating the cost of deprivation of sleep to society and also businesses
- For the sake of developing and also implementing interventions in order to improve sleep quality and quality among the workers of any industry

Through this research these are all the objectives that can be addressed through variety of the methods liking literature reviews experiments and also case studies etc the main findings of the research will be used to inform the policy to the public practises in the workplace and also behaviour of individuals. Finally the main objective of the research is to find out the better understanding about the impacts of sleep and the ability to work efficiently and effectively. The knowledge which is geared from the research will be able to develop different strategies in order to improve quality and quantity of sleep which will lead to increased productivity and also well being of a human soul in a complete picture.

RESEARCH METHODOLOGY

The research which we are design is used to analyse the significant relationship between performance of an individual as well as sleep of individual, Where the Questionnaire was circulated among the public collected around 2 nought six responses for which we have concluded the significant relationship between sleep as well as academic performance and performance in job etc.

The collection of the sample and also population was selected for the study was for the undergraduate students at a university which is located in the country of India and this university Has been chosen because it is the only university which is in the area of hospitality management programme. The questionnaire which is prepared for the sake of this research was circulated among the different students for the sake of data collection and also they have provided four sections in the questionnaire which includes sleep habits demographics sleep quality and also performance in the academics and finally job performance. The section demographic was Initially created for the sake of review of the literature which is related and the information of demographic was utilised for the sake of determination of the sample which was similar to the population and also in order to enable the significant data analysis of subgroups. The sleep quality as well as sleep habits section all of them were adopted from the quality index and the quality index has been found that Cronbach Alpha is equal to 0 .80 and it has been utilised in different research papers and research works previously. For the sake of analysing the performance of the students the semester gpa as well as the cumulative gpa offer students for utilised to track the academic performance and the performance in their job is calculated and it was adopted as an instrument which is reliable.

The questionnaire is circulated based on 5 point likert scale. Where one is equal to never and 5 is equal to always. Sleep hours as well as sleep habits were differently scared in time. Remaining items they were measured through Likert scale. For the quality of sleep we have circulated the questionnaire as in the form of likert scale where 1 is very bad and 5 is equals to very good.

The academic performance had four attempts namely the amount of credits that the particular student has been earned and also students cumulative gpa as well as semester gpa has been utilised for the sake of analysing academic performance of a student.

DATA ANALYSIS

The data which is obtained from the questionnaire is exported in the SPSS Software and for the sake of comparison participants were differently devoted into the three groups which is based on their status of employment and for the people who are working in the hospitality industry and for the people who are working in other industries and finally for those who are not working at all. The different descriptive statistics were utilised for the sake of analysing the information of demography. T test tv's utilised for the sake of comparing the different relationship among the sleep performance in academics and performance in the job between different student groups. Principal component analysis was utilised in order to find out the different factors for the sake of ten disturbance items of the sleep. Art to improve the interpretation of the obtained item so ablimin rotation word utilised and the factors which are considered was having the eigenvalues which are greater than one was retained. After the principal component analysis there were three distinct and different factors of the disturbance of the sleep which includes physical disturbance of sleep environmental disturbance of sleep and also medical disturbance of sleep. Atlas 7 sleep related different variables were utilised in regression like sleep latency enrollmental disturbances of sleep physical disturbances of sleep medical disturbances of sleep utilising of sleeping medicines dysfunction during the daytime and quality of sleep.

The method which is used in the regression step 5 is backward method which is used to determine the variables of sleep related issues which were ultimately related to the performance of students in the academics as well as the job performance.

Results

A total of 206 responses (7.8% response rate) were collected from the on-line questionnaire with 48 items. The researchers

Table 4.1 Demographics of Sample (N=172)

Characteristic	n	%
Gender		
Female	104	60.5
Male	68	39.5
Age		
18-24	166	96.5
25-34	4	2.3
35-44	2	1.2

Academic Major		
Hospitality management or events	6	3.5
A major other than hospitality management or events	166	96.5
Classification Status		
Sophomore	46	26.7
Junior	61	35.5
Senior	65	37.8
Employment		
Working in the hospitality industry	24	14.0
Working in other industries	93	54.1
Not working	55	32.0

Even though question were were answered by 206 Respondents, Only 172 answers were able to generate unable to utilise for the sake of analysis as many of the responses lacked either one or two questions and the values are 0 for those questions so we have ignored the questions which don't have any answers and considered only 172 questionnaires.

Truth is about demographics we can easily able to identify that majority of the respondents were female which constitutes about 60.5% and the average age of the respondents has been identified to around 19.65% as we have collected the questionnaires from the students itself and majority of the students have major other than the events or hospitality management of around 96.5% and most of the students were differently employed in various industries other than the hospital industry industry which constitutes off around 54.1% and the participants who are not eligible as well as who are not working in any of the industry is constituting around 32%.

Characteristic	Hospitality (n=24)		Others (n=93)		Total (n=117)	
	n	%	n	%	n	%
Have managerial or supervisory responsibility						
Yes	9	37.5	16	17.2	25	21.4
No	15	62.5	77	82.8	92	78.6
Work shift						
Day shift	8	33.3	55	59.1	63	53.8
Evening shift	8	33.3	17	18.3	25	21.4
Overnight shift	1	4.2	1	1.1	2	1.7
Different shifts	7	29.2	20	21.5	27	23.1
Work schedule allows enough sleep						
Strongly disagree	1	4.2	1	1.1	2	1.7
Disagree	3	12.5	4	4.3	7	6.0
Neutral	5	20.8	12	12.9	17	14.5
Agree	11	45.8	54	58.1	65	55.6
Strongly agree	4	16.7	22	23.7	26	22.2
Average work hours each week						
Less than or equal to 10 hours	1	4.2	32	34.4	33	28.2
11-20 hours	19	79.2	48	51.6	67	57.3
21-30 hours	4	16.7	7	7.5	11	9.4
31-40 hours	0	0.0	5	5.4	5	4.3
More than 40 hours	0	0.0	1	1.1	1	0.9
Started current job						
Less than 6 months ago	9	37.5	29	31.2	38	32.5
6 months to less than a year ago	3	12.5	14	15.1	17	14.5
1-2 years ago	10	41.7	36	38.7	46	39.3
3-4 years ago	1	4.2	10	10.8	11	9.4
More than 4 years ago	1	4.2	4	4.3	5	4.3

The students who are working constitutes around 117 and majority of them has been worked for more than one or two years who are placed in their current jobs which constitutes around 39.3% and the students who work around 11 to 20 hours per week constitute around 57.3% the responsibilities of students who had managerial as well as supervisory responsibilities constitutes of around 21.4% And what of the students worked in the ship to which constitutes up around 53.8% and three fourth of the students have agreed that the schedule of their work has given them opportunity to get them enough sleep which constitutes a around 77.8%.

DV	IV	Coefficients		R ²
		B	SE	
Cumulative GPA	Sleep latency	-.116**	.041	.044
Semester GPA	Sleep medicine	-.148*	.062	.032
Job performance	Sleep quality	.131**	.040	.086

* $p < .05$. ** $p < .01$.

Multiple regression has been conducted between the sleep and academic performance which helps in analysing the relationship between both of the factors.

Through regression it is confirmed that cumulative gpa has been affected because of negative effect of sleep latency and negative effect of the medicine so on the semester gpa.

Even relationship between sleep and job performance is analysed through regression under sleep quality was the main variable which has an effect on the performance in the job.

CONCLUSION AND DISCUSSION

The main purpose of the current research study was to explore the effect of sleep on the different productivity activities like job performance academic performance etc and the institutes want students to give hundred percent for their institute and the employers want their employees to provide 100 percent in their job so in order to determine the factors of low productivity among students as well as the employees we have conducted a research which showed that both job performance as well as academic performance has been impacted by the sleep. Sleep deprivation will be taken to impact negatively on the productivity when humans don't get a sleep according to their satisfaction which they feel and experience the main effects of difficulty in concentrating any of their works that they have made and it also affects in thinking capability as well as problem solving and also decision making process. Humans also feel irritative tyre as well as tragedy if they lack enough sleep. There are different theories as well as research works has been identified with showed that sleep has a very important role in the productivity and the one such study has showed that the people or workers who slept more than 8 hours in the night have been additionally 15% more active as well as productive in their work and people who slept less than six hours a day has been less productive than those who slept for more than eight hours a day. The deprivation of sleep also has numerous negative consequences which includes numerous accidents risk injuries as well as diseases which are chronic which will lead to problems like mental health problems relationship problems and also complete quality of life.

Finally sleep is very essential for the sake of productivity and getting proper amount of sleep will help anyone to think clearly make good decisions and can also focus on their work and it also helps in order to manage stress and also to stay motivated every time.

LIMITATIONS

Every research work will have its own limitations and even this research will have some of the limitations even though the re the good response Rate but it consists of only few students who is having age from 18 to 24 And it does not contain all age groups so it will be quite biased towards one particular age group group people because of the study has been Performed in only one of the universities, The result which are obtained is not generalised results and the student gpa which is obtained from the office of the university is not the same for all the students hence this analysis will be quiet biased because of issues in timings it is research considered only an online questionnaire and the future opportunities in this area is to conduct thorough research by considering all the age groups and cheque whether there is any impact in the performance in the academic job because of their sleep latency sleep habits etc it should consider both aged group as well as young students who use more mobiles in recent days as well as unhealthy sleep habits affects their sleep which should be studied on which should be considered in further studies.

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