



Research Article

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Sleep Quality and Academic Performance of Upper Basic Education Students in Social Studies in Cross River State, Nigeria

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Abstract

This paper analyzed sleep quality and academic performance of Upper Basic Education (UBE) students in Social Studies. One research question and statement of hypothesis were formulated to guide the study. The literature review was done dependent on the variable under examination. The survey research design was used in the study. The outcome of the research uncovered that there is an impact of sleep quality on the academic performance of students in social studies.

Keywords: Sleep quality, Academic performance, Social Studies, Upper Basic Education, academic achievement

1. Introduction

Not at all like the amount of sleep, quality of sleep alludes to how well you rest. For grown-ups, great quality rest implies that you ordinarily nod off in a short time or less, rest sufficiently during that time without any than one arousing, and float back to rest at about 20 minutes before you wake up (Hershner, 2014). In educational establishments, the achievement is assessed by performance in academic, or how well an understudy fulfills rules set out by the establishment. As competition in career becomes fiercer in work environments, the necessity of understudies' doing incredible in school has gotten the eye of guardians and policymakers. Despite the way that, academic achievement is not the central avenue to scale through successfully in the job market, much effort is made to recognize, evaluate, and invigorate the headway of understudies in schools. Guardians care about their child's academic performance since they acknowledge that extraordinary insightful results will give more job choices and security in jobs (Ding, 2009).

Performance in academics in school is assessed in various ways. For standard keeping an eye on, understudies show their insight by wandering through made and verbal appraisals, turning in

schoolwork, carrying out introductions, and having an interest in-class exercises and talks. In like manner, for teachers to depict how well a study was conducted, materials such as number evaluations, letters, and side notes are used. School at any rate put resources into creating remarkable instructive propensities for a similar explanation are besides ordinarily affected by worries over the school's notoriety and the probability of money related guide from government bodies which can rely upon the general execution of the school. For a seriously long time, researchers have been focusing on the determinants of educational achievement (Asarnow, 2013). Black, Devereux, and Salvanes (2015), Vardardottir (2013) and Leos-Urbel, Schwartz, Weinstein, and Corcoran (2013) have perceived prior gathered human capital, the costs and returns of cutting edge instruction, social establishment characteristics and sex as a crucial determining factor in explaining brings about upper principal training.

However, a dismissed factor in investigating writing on scholarly accomplishments is the best quality. Apart from making people feel dormant in the day time, rest disaster is a more potential cause for Alzheimer's disease (Slats, Claassen, Verbeek&Overeem, 2013). The idea of rest is evaluated along with quantitative and abstract estimations. The quantitative portion consolidates the length of rest while the abstract fragment is a passionate extent of the significance and supposition of unwinding after stimulating. Rest quality has been accounted for to be a pointer of insightful execution. From a speculative viewpoint, a positive association between rest quality and insightful performance can be ordinary. In perspective on exploring inside prescription and science, we understand that rest at night is fundamental to caring for demeanor, thought, motivation, memory, and abstract execution. While dozing, the psyche fuses new data and structures new affiliations (AlDabal&BaHammam, 2011; Alvaro, 2014; Vandekerckhove&Cluydts, 2010).

Though most prosperity affiliations commend 7 to 8 hours of rest for the ordinary adult, rest essentials contrast per individual. One of the critical requirements of the learning system for memory and incredible academic execution for understudies of various structures is having quality rest. At any rate, various understudies in tertiary associations, especially while getting ready for evaluation prevent themselves from claiming rest through a couple of exercises, for instance, smoking, scouring just as taking of fortifying substances acknowledged to cause a dozing issue; for example, coffee, blended refreshments, squeezed drinks, (Hershner, 2014).

Rest has been seen as one of the least of the necessities of a vast number of individuals particularly understudies since they acknowledge they should persistently get together with time in every single scholarly action. Most appraisals in recent times have pondered on the negative impacts of deficient lay on understudies and grown-ups. At any rate, there is the need to both see and consider how a non-remedial connected clarification (poor instructive execution) can influence the rest plan likewise as how lacking or poor rest model can disturb poor keen performance among understudies in Cross River State. Thus, this assessment is planned to expressly look into how sleep quality impact on academic performance of upper basic education students in Cross River State, Nigeria.

1.1 Research question

What is the influence of sleep quality on the academic performance of upper basic education students in social studies?

1.2 Research hypothesis

There is no significant influence of sleep quality on academic performance of upper basic education students in social studies

2. Literature Review

Sleep quality depicts the length of sleep. Drummond and McKenna (2009) expressed as follows “quality of rest is comprehensively arranged in terms of three classes: all-out rest, fractional rest, including rest discontinuity”. In past investigations, quality sleep was estimated by category: lengthy haul absolute sleep (consistently sleep for over 9 hours), momentary all-out sleep (persistently sleep for up to 7-9 hours), and midway sleep (dozing under 5-hours in 24 hours) (Pilcher & Huffcutt, 2016).

Various reports have shown that students and everybody needs at any rate eight hours of sleep each night (Carskadon, Harvey, Duke, Anders, Litt & Dement, 2010; Carskadon, Acebo & Jenni, 2018). Nonetheless, students have been found to acquire less sleep than their grown-up partners. Various factors, for example, social exercises and different conduct exercises may have added to the adjustment in sleep design. By and large, auxiliary school students have school plan necessities which expect them to be completely awake promptly in the first part of the day, this is likely because the vast majority of these school children are involved in lessons by 8:00 am. These schoolchildren are committed to being in school till around 2:00 pm or broadly lengthier relying on their timetable also are likewise expected to get together with different class responsibilities (Carskadon, Acebo & Jenni, 2018).

Another assessment by Chien-Ming, Chih-Hsing, Ming-Hui, Ming-Hsiung, and Feng-Hwa (2013) investigated the energetic adults' adjusting procedures for these rest aggravations and the sensibility of the altering systems upon rest quality and daytime apathy. The focus involved 1,922 first-year understudies, of which 44% detailed encounters rest issues, with lacking rest being the most common grumbling (23.9%). Taking snoozes and changing rest plans were modifying strategies related to even more plausible rest quality. Then again, subjects who point by point attempting a rest impelling action, disregarding their rest issues absolutely; or trying senselessly to discover a system for acclimating to their rest issues revealed a less honoured rest quality. However, some altering systems were connected with favoured rest quality over others, the degrees of daytime tiredness were relatively impeded in all modifying parties to an extent that it is indistinguishable from the sluggishness in patients with a tolerable rest connected respiratory issue.

The effects of sleep issues on various parts of life among youthful grown-ups have likewise been reliably recorded. A few investigations have detailed the relationship between sleep challenges and poor scholastic execution. For instance, one survey exhibited that 17% of students who displayed side effects of Delayed Sleep Phase Syndrome (DSPS) additionally uncovered less successful scholarly performance (Lack, 2008). Overviews of secondary school students have likewise indicated that a decreased all-out sleep time, later sleep time, and later end of the week sleep plans was related to lower school grades. An ongoing report has additionally indicated that sleep propensities, more than all other wellbeing interrelated practices, bore the most elevated consistency of scholastic execution of students (Wolfson & Carskadon, 2018).

Notwithstanding academic performance, sleep-related unsettling influences were likewise seen as identified with enthusiastic and conduct issues among students. Verlander, Benedict, and Hanson (2009) revealed that the enthusiastic reaction to worry for students was exceptionally connected with their nature of sleep. A past report likewise has discovered that sluggish students showed a more noteworthy penchant toward negative states of mind and expanded liquor and tobacco use. Jean-Louis, von Gizycki, Zizi, and Nunes (2018) opined that for teenagers, sleep grievances were related to passionate unsettling influence qualities and were proposed to be an indication of extreme family or individual interruption”. There is a stable relationship between sleep issues and enthusiastic aggravations; although, no doubt the easygoing connection between them has not yet been resolved (Vignau, Bailly, Duhamel, Vervaecke, Beuscart & Collinet, 2016).

Sleep has additionally been connected to intellectual exercises. It has been called attention to that poor maintenance of information happens if people are denied sleep during learning (Moorcroft, 2013). Moreover, data is organized, consolidated, incorporated, and stored during sleep (Paller & Voss, 2014). In support of this assumption, Karni, Tanne, Rubenstein, Askenasy, and Sagi (2014) showed

that perceptual task memory consolidation in humans depends on REM sleep. Their study suggested that rest is mandatory for memory trace formation in this task. There have been several other studies (Ambrosini&Guiditta, 2011).

A notable study is that of Rani (2016), they studied rest subordinate memory union in patients with focal epilepsy. They evaluated revelatory memory standard for dependability in members with focal epilepsy and found that consistency standard of 62.7% more than 12 hours of alertness and 83.6% over an additional 12 hours which included rest. The distinction tried critical at $p < 0.04$. The Performance on medium-term testing connected exceptionally with the span of moderate wave rest (SWS) ($r = +0.63$, $p < 0.05$). They additionally found that day time seizure didn't influence maintenance, whereas night time seizure resulted in more than 30% drop in retention. Some other studies (Cellini, Torre, Stegagno&Sarlo, 2016) have shown that even day-time nap facilitates memory consolidation regardless of the absence of REM or NREM sleep. It is considerably clear from the above literature that sleep is essential for memory consolidation in humans.

Disturbance of the sleep-wake pattern of an individual may affect attention to details and concentration as is commonly experienced in jetlag. It seems therefore that chronotype would confer academic advantages on some students, and disadvantage on others. Expectedly, several studies have found significant relationships between chronotype and academic achievement. In keeping with earlier studies (Kirby & Kirby, 2006; Randler&Frech, 2016). Onder(2014) found among university students that earlier chronotypes obtained higher CGPAs than later chronotypes. They also observed better sleep quality and academic motivation in their female sample. Similar results have been found for school children.

Merdad, Merdad, Nassif, El-Derwi, and Wali (2014) noted that lower grade points were more prevalent among students who experienced a reversed sleep cycle on weekdays. Other researchers (Asarnow, McGlinchey, & Harvey, 2013; Giannotti, Cortesi, Sebastiani, &Ottaviano, 2012) demonstrated a similar negative association of eveningness on academic achievement. Preckel, Lipnevich, Schneider, and Roberts (2011) conducted a meta-analytic study in which they found that eveningness correlated positively with cognitive ability but inversely with academic achievement.

Conversely, morningness correlated negatively with cognitive ability and positively with academic achievement. These studies show that sleep plays an essential role in cognitive functioning and academic performance. Studies on Sleep duration is neither here nor there. Titova, Hogenkamp, Jacobsson, Feldman, Schioth, and Benedict (2014) investigated a cohort of 40000 school children and noted that self-reported sleep disturbance and a short period of sleep, defined as sleep less than 7 hours, predicted academic failure. Their findings agree with Asarnow (2013), and with Dewald, Meijer, Oort, Kerkhof and Bogels (2010). But others like Tonetti, Fabbri, Filardi, Martoni, and Natale (2015) have found that sleep efficiency rather than duration is necessary for the quality of the academic outcome.

Rosekind, Gregory, Mallis, Brandt, Seal, and Lerner (2010) reviewed the expense of inadequate rest to the alliance. Agents working at four relationships in the United States took an into sleep in the evaluation, with 4,188 (16% reaction rate) finishing an online review. The examination involved estimation things, rest associated things, work execution things (e.g., memory, thought, and security), and the WLQ utilized in a related report (Mulgrew, Ryan, Fleetham, Cheema, Fox, Koehoorn, FitzGerald, Marra, &Ayas, 2007). As indicated by the count of the WLQ, the specialists translated that each agent cost his/her affiliation \$1,967 for diminished individual advantage occurring because of poor rest structures. They, also, discovered specialists who slept inadequately had more stunning occupation execution than the individuals who slept adequately. Additionally, there was an issue with work security: operators who felt sleepy during working hours had the most raised level of misfortunes in the working environment and frequently fell asleep while driving.

El Desouky, Lawend, and Awed (2015) posited that Nursing understudies have an exhaustive course load that necessitates risky work, simultaneously pleasant rest. More so, they imparted that by uprightness of the association between rest, memory strategy, and learning, rest is of most over the top criticalness to nursing understudies, regardless, when nursing understudies continue with school,

their rest tendencies and models changes. These understudies routinely start rehearsing a resting structure that is depicted by the nonattendance of rest. In like way, nursing understudies in the University of Calabar, face staggeringly clamoring everyday plan which routinely begins by 7:00 am and wraps up by 5:00 or 6:00 pm. Following two months square (time of intense talks), the understudies move to the clinical locale for focused clinical practice which should prop up for an additional two months before they come back to the assessment passage for semester assessments. In many cases, since the fundamental two months of the square isn't customarily enough for instructors to finish their talks, they generally come back to contemplate a hallway or bit by bit (occasionally from 2.30 to 5 or 6 pm) for addresses by various educators who most likely won't have finished their course work, and these classes do once in a while end with assignments.

Given the above circumstance, several understudies may choose to either rest promptly around night time to rise later around evening to either analyze or do a few assignments or keep caution and rest late around evening time for a practically identical clarification. Given the above situation, several understudies may resolve to substances or activities that can help them to either rest or stay awake. These activities may disturb segments of the ordinary school understudy's life including astuteness, point of view, safe framework work, and even lead to abuse or misuse of substance (Orzech, Salafsky, and Hamilton, 2011). Activities like this may impact learning, memory, and quick execution also as physiological and mental thriving.

Cebulko (2010) saw that everything considered, nursing understudies point by point stimulating in the night or early morning around one to multiple times every week and utilized caffeine as a means to kill rest. Among understudies of the University of Arizona in Tucson, Arizona, Otenyo (2015) discovered most understudies had more rest throughout parts of the deals, stood apart from Monday to class days. The run of the mill extent of rest (4–6 hours) by a more significant bit of understudies was at the asking of the week (Mondays and Wednesdays, showed up distinctively in connection to in any occasion 8 hours of rest during week's end - Friday-Sunday. By a wide margin, the significant part of the respondents had a customary of 6-8 hours of rest for consistently, with the majority of them not utilizing rest improvement substances, for example, homemade teas, drugs looked for after by liquor and charged beverages.

In understanding, Ahrberg (2012) produce an examination entitled "The interaction between sleep quality and academic performance" shows that in sleeporative students it isn't the for the most part poor sleepers, who perform all the more terrible in the helpful board tests. Or maybe understudies who will play more regrettable on their tests appear to be progressively focused and experience the ill effects of poor sleep quality. In any case, poor sleep quality may adversely affect test execution too, making an endless loop. Moreover, the pace of sleep unsettling influences in sleeporative students ought to be cause for intercession. It merely means that sleep does not intentionally cause students to have a poor academic performance but having a low score enable or leads them to become sleepless. It seems that stated in the study that it created a vicious circle which simply implied that it could be both triggered the students to have low performance or score.

3. Methodology

The research design used in this investigation is the survey research design. The design is concerned with the critical examination of the features of the whole population through a chosen sample. The survey design was therefore adopted because it permits inferences and generalization of findings to the entire population from a study of a representative sample of the population. The design was additionally viewed as proper for this examination since it surveys musings, conclusions, emotions, observation, and connection of respondents by the specialist (Denga& Ali, 1998).

This investigation was carried out in Cross River State, Nigeria. Cross River State is located in the South-South geopolitical zone of Nigeria, which involves eighteen Local Government Area in particular: Abi, Akpabuyo, Bakassi, Boki, Calabar Municipality, Calabar South, Ikom, Etung, Obubra, Ogoja, Bekwarra, Yala, Yakurr, Odukupani, Biase, Akamkpa, Obudu, and Obanliku individually. Cross

River State is divided into three instruction zone specifically: Ogoja Education Zone contains six territory training authority, Ogoja, Bekwarra, Obanliku, Obudu, Yala. Ikom Education Zone contains Ikom, Boki, Etung, Obubra, Yakurr, and Abi, and Calabar Education Zone involved Akpabuyo, Bakassi, Calabar Municipality, Calabar South, Biase, and Akamkpa Local Government Areas.

It covers the landmass of roughly 12,961 square kilometers. The state is comprised of 132 prevailing ethnic gatherings. They are: Efik, Quas, Ejagham, Olulumo-Ikom, Ikom, Okuni, Yala, Nkum, Bakor, Atam, Mbembe, Ufia, Yako, Leggbo, Bahumono, Lakaa, Lokoi, and Bokyi, to refer to yet a couple. The vacation spot in the region are: Calabar fair, Tinapa, Museum, Kwa River, Marina Resort, Yakurr global new yam celebration, Fosleep hold in Boki. Agribusiness is the backbone of the economy of the state as over 85% of the all-out populaces are ranchers. A portion of the produce from horticulture is fish, palm oil, banana, vegetable, oranges, cocoa, maize, rice, garri, pepper, cassava, kola nuts, and organic products. This item produces income for them when taken to the market available to be purchased.

The territory is described by twofold maxima precipitation that peaks in the long stretches of July and September. The state records an average yearly precipitation measure of 3000mm and relative mugginess of above 85% (NAA climate forecast, 2006). The number of inhabitants in Upper Basic Education (UBE) students is comprised of 41,233 Students from 272 open Secondary Schools in Cross River State (Ministry of Education, 2018). A stratified random sampling technique was adopted in selecting 206 respondents for the study from eighteen (18) strata. A validated 40 items Social Studies achievement test (SSAT) were the instruments used for data collection. Data were analyzed using the One-way analysis of variance at 0.05 level of significance (i.e. 95% confidence interval) with the help of Statistical Package for Social Sciences (SPSS) version 20.

4. Results/Findings

The hypothesis stated sleep quality has no significant influence on the academic performance of upper basic education students in social studies. The independent variable is age categorized into partial sleep (5 hrs and below), short term sleep (6-8 hours), and long term total sleep (9 hours above) while academic performance serves as the dependent variable. One-way Analysis of Variance (ANOVA) was the statistical tool employed for data analysis of the variable. The result is presented in table 1.

Table 1: Summary of data and One-way analysis of Variance (ANOVA) on the influence of quality of sleep on students' academic performance in social studies in Cross River State.

Quality of sleep	N	X	SD		
Below 5 hours	45	29.35	7.90		
6 to 8 hours	91	29.46	7.19		
9-hours and above	70	27.09	8.33		
Total	206	28.63	7.81		
Sources of variation	SS	DF	MS	F	
Between groups	253.549	2	126.774	2.11	.124*
Within groups	12190.412	203	60.051		
Total	12443.961	205			

$P < .05, Df = 2, 204$

The result in table 1 shows that the calculated F-value of 2.11 was significant at a p-value of .124 with 2 and 203 degrees of freedom at .05 level of significance. With this result, the invalid theory was dismissed. This outcome, along these lines, suggests that there is a critical impact of rest quality on the scholastic execution of upper basic education students in social studies. To determine the amount of the influence on which of the sleep quality categories has on the academic performance in social studies, a Fisher Least Post-Hoc test was conducted as observed in table 2

Table 2: Post Hoc tests on the influence of sleep quality on students' academic performance in social studies in Cross River State.

		Multiple Comparisons		
(I) Sleep quality	(J) Sleep quality	Mean Difference (I-J)	Std. Error	Sig.
5 hours below	6-8 hours	-0.11	1.41	.940
	9 hours and above	2.26	1.48	.127
6-8 hours	5 hours below	0.11	1.41	.940
	9 hours and above	2.37	1.23	.055
9 hours and above	5 hours below	-2.26	1.48	.127
	6-8 hours	-2.37	1.23	.055

***The average disparity is significant at 0.05 degrees.

Looking at table 2 one can deduce that students who sleep for 9 hours and above have more influence on academic performance in social studies than students who sleep for 5 hours and below (mean difference = 2.26, $p < .05$). In the same vein, students who sleep for 9 hours and above have more influence on academic performance in social studies than students who sleep for 6-8 hours (mean difference = 2.37, $p < .05$). However, the difference between students who sleep for 6-8 hours and those who sleep for 5 hours and below was not significant. What this meant was that the null factor was denied, while the contingency factor was taken. Hence, there is a critical impact of sleep quality on the scholarly execution of upper fundamental education students in social studies in the study area.

4.1 Discussion of findings

This exploration theory which tends to assess the impact of sleep quality on their scholastic execution in social investigations in Cross River State uncovered that there is a critical impact of sleep quality on the scholarly execution of upper fundamental education students in social examinations. This outcome isn't astounding because the more an individual sleeps, the more the mind resuscitates itself and ingests data adequately. The outcome is in similarity with the study of Moorcroft(2013) whose finding revealed that poor maintenance of data happens if people are denied sleep before learning. The after-effect of the investigation emphatically underpins the consequence of Regina, Felicia, and Josephine (2019) about nonappearance of rest and scholarly execution on nursing understudies in the University of Calabar. The finding indicated a measurably noteworthy connection between lack of sleep and scholastic execution, additionally, a factually critical impact of lack of sleep on scholarly execution of male and female nursing understudies. The eventual outcome of the assessment is in congruity with Kazim and Abrar (2011) whose position includes an understudy without satisfactory rest may bring about enthusiastic shakiness, memory hardship including reducing obsession. The miracle of lack of rest and nonattendance of significant worth rest is fundamental among school and tertiary instruction understudies, especially when their evaluation is snappy moving closer. Being not capable get the recommended proportion of rest each night adversely influences the next day working, and can in like manner be blocking to prosperity and may incite poor educational execution.

The result of the study is in agreement with El Desouky, et al. (2015) on the relationship between quality of sleep and academic performance among female nursing students" the finding indicate that "numerous components are influencing rest quality for understudies as beyond what half of them can't nod off inside 30 minutes in the wake of hitting the hay and have torment from one to three times each week, 66% of understudies have great quality rest. Understudies with great all-out rest quality have a decent scholastic score with positive connection with an exceptionally measurably critical distinction".

5. Conclusion

In line with the results obtained from this study, it was concluded therefore that, there is a significant effect of rest quality on academic performance of upper fundamental training understudies in Social Studies. A disregarded factor in research composing on educational performance is rest quality. Rest expect an unusual activity in human prosperity. Rest misfortune not just causes people to look restless on a broad day; it is even a potential hazard factor for Alzheimer's illness. Although most flourishing affiliations underwrite 7 to 8 hours of rest for the average grown-up, rest necessities fluctuate per person. Having quality rest is one of the critical basics of the learning technique for memory and unprecedented scholarly execution for understudies of varied systems.

5.1 Recommendations

In line with the findings of this appraisal, it was recommended that Social studies understudies should make a day by day standard, for instance, loosening up practices that will assist them with setting up the body for an ordinary night's rest. This ought to unite practices and abandon doing anything in bed, for instance, sit before the TV other than napping and resting.

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