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Ian Oswald's Theory of Sleep as a Strategy for Promoting Excellent Students' Academic Performance

Adeyanju, J. O.

Administration and Leadership Department, Faculty of Education. The Nigerian Baptist Theological Seminary Ogbomoso

Abstract

This study investigated the relationship between sleep and the academic performance of higher institutions students. Sleep is an integral part of human life, and its excess or inadequacy could lead to disaster. Ian Oswald postulated a restoration theory of sleep that explained sleep's beneficial effect. Factors responsible for excellent academic performance were highlighted, and Ian Oswald's restoration theory of sleep was explored to ascertain its relationship with the academic performance of students of higher institutions. A descriptive research design was employed for the study. The scope of the study was delimited to Nigeria, and the study sample was drawn from students of higher institutions across the country. The study used the unstructured interview to substantiate existing data on sleep and academic performance. The study's findings revealed that adequate quantity and quality of sleep could promote excellent academic performance. It was also revealed that lack of adequate sleep could lead to various illnesses that could hinder students' excellent academic performance. The study further revealed that sleep time and duration consistency is paramount if body and brain restoration is desired. The study recommends understanding and application of Ian Oswald's restoration theory of sleep as a strategy that could promote excellent academic performance of students in Higher institutions of learning. It also recommends good sleeping habits to students in higher institutions in a bid to achieve excellent academic performance

Keywords: Sleep, Academic performance, Restoration theory, Students

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1.0 Introduction

Sleep is designed to ensure rest. Sleep rejuvenates, as well as renews strength and vigour. All facets of human mental, emotional, and physical performance seem to be affected by sleep quality. Daily experience shows that night sleep has considerable benefits, and sleep seems Students' academic performance could be regarded as the extent to which students have achieved long- or short-term educational goals. Examinations or continuous assessments commonly measure it. Students' academic performance is both an indicator and a significant future determinant of youth. Learning outputs is a phenomenon of interest to all education stakeholders, and scholars have been working assiduously to explain factors that could militate against excellent academic performance. This paper, however, explores the importance of sleep in enhancing the excellent academic performance of students pursuing higher education. It investigates how students could employ the tenets of Ian Oswald's restoration theory of sleep to achieve excellent academic performance.

2.0 Ian Oswald's Restoration Theory of Sleep

Dr Ian Oswald was a sleep researcher and psychiatrist. He studied restoration in individuals and noticed that energy needs were not met due to environmental factors. His research culminated in a theory showing that inadequate sleep makes humans less productive or even unproductive. He further stated that insufficient sleep could also lead to diverse health problems. The theory claimed that sleep could be used to repair the body and the brain. It further suggests that the body is repaired when humans observe slow-wave sleep, referred to as SWS. According to the theory, the brain is repaired when rapid eye movement (REM) sleep is observed. Scientific evidence of an increase in the secretion of growth hormones during SWS supports this theory's claim. This understanding points to the fact that inadequate sleep can cause disaster in individuals lacking adequate sleep. Ian Oswald's restoration theory of sleep holds some tenets that are discussed along with the importance of sleep in promoting excellent academic performance.

critical for man's mental and psychological well-being. Good quality and quantity of sleep are necessary for a satisfactory health condition. However, some people appear to see inadequate or sleep deprivation as a thing of pride, but Ian Oswald's Restoration Theory of sleep emphasises the rejuvenating ability of sleep.

3.0 Students' Academic Performance

Many scholars have defined academic performance as educational achievement or intellectual functioning (Adeyanju 2020; Adeyemo

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2018; Akinfolaju 2012; Osei-Mensah 2012; Reid 2018; Darling-Hammond 1999). The attention of scholars, parents, policymakers and planners are always drawn to learners' academic achievement. Adeyemo (2018,22) believed that schools primarily aim at working towards attaining academic excellence by students, while Fadare (2012, 44) opined that the school might have other peripheral objectives, but the emphasis is always placed on the attainment of thorough scholarship. Besides, almost everybody concerned with education places a premium on academic performance; majorly, students' excellent academic performance is the parents' expectation.

Investigating factors that could aid the academic performance of tertiary education students is recently a topic of growing interest in higher education circles. Many studies were carried out to explore factors affecting university students' academic performance. Akinfolaju (2012,67) reported learning abilities, gender and race as varying factors that affect students' academic performance. Family income level, attending school on a full-time basis and receiving grants that would be paid back after school have statistically significant effects on higher education students' academic performance (Adeyanju 2020,44). The students' socio-economic status is also one of the most debated factors among educational professionals as an essential determinant of the academic performance of students pursuing higher education. It is always argued that low socio-economic status negatively affects students' academic performance because as their basic needs remain unfulfilled, their academic performance will automatically reduce. The low socio-economic status may cause environmental deficiencies, resulting in low self-esteem in students, according to a US Department of Education report in 2003.

The availability of competent teachers could also aid students' academic performance in higher institutions. The ability of teachers to cover syllabuses as at when due is capable of enhancing students' academic performance and vice versa. A high level of teachers' motivation is also highlighted as contributing to high students' academic performance in higher institutions. When teachers are well motivated, the quality of instructions to be transmitted is likely to be of a high standard, and the reverse is the case when there is poor motivation or no motivation at all (Adeyanju 2020, 41).

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The gender variable is seen as a factor that influences academic performance. This is noted as personal variables related to motivational functioning and academic achievement differences. Different findings have demonstrated the existence of varying attribution patterns in boys and girls. Fadare (2021,71) submitted that girls tend to give more emphasis on effort when explaining their performance, but Orimadegun (2015,78) opined that boys appeal more to reasoning ability as the cause of their academic achievement. Akinfolaju (2012,66) also pointed out that girls typically exhibit external attributions for successes and failures, and when internal attributions are made, these denote ability rather than effort. However, boys generally arrogate performances to steady inner origins such as determination, which shows that attributional patterns could enhance an academic image. Another prevalent factor in students' academic performance at the individual level is the influence of the home environment. The importance of the home environment on students' academic performance cannot be overemphasised, as submitted by Fadare (2012,79). The home significantly influences the students' mental, emotional, social and economic state, affecting their academic performance.

Adeyanju (2017,67) submitted that the state of the home significantly affects students since the parents are the first socialising representatives. A student's family background and context could inform his response to life and academic performance. Although the school could also be responsible for the experiences that make up the individual's life during school, parents and the individual's experiences at home play tremendous roles in building the student's personality and making him what he is. Therefore, the environment in which the student comes from can significantly influence his performance in school.

Educational research has examined the impact of the geographical location of schools on students' academic performance in recent times. There seems to be a general belief by educators, researchers and the general public that students from rural schools are generally exposed to inferior education instructions compared to the students that live in urban areas. Kashaa (2012,23) supported the claim that students in urban schools have every tendency to perform better academically than their counterparts in rural areas. He concluded in his article that teachers in rural schools are deprived of many instructional materials and on-the-job training, which, in essence, affects the quality and quantity of educational instructions they can give the students in their care.

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In the opinion of Osei-Mensah (2012,14), many factors contribute to the differences in performance between students in rural and urban areas. He listed some factors as family, low socio-economic status, lack of education facilities and resources, and less qualified teachers. The seemingly better academic performance of urban students seems to result from a better quality of educational instruction, availability of information from various sources like mass media and electronic media, and help from educated families and peer groups.

Adedeji & Olaniyan (2011,67) submitted that students in rural areas are less exposed to the outside world and sometimes lack knowledge about trending issues. Siaw (2009,33) corroborated this argument by submitting that rural schools in Ghana lack proper infrastructure and facilities, have low enrolment, less qualified teachers, few or no textbooks and other teaching and learning materials. In contrast, urban schools are generally overstaffed with qualified teachers, are overenrolled, better funded, well monitored and have better infrastructure and adequate resources to work with.

Reid (2018,76) submitted that teachers' qualifications are critical in driving students' academic performance. Student academic performance is considered an accurate measure of the effectiveness of qualified teachers and has become a basis for value-added teacher assessment systems (Braun 2005,12). In many countries, teacher qualifications that are considered to be related to student learning have become targets of education reform. However, the nature of this reform is under debate. The literature shows a somewhat more robust and more consistently positive influence of higher education and pedagogical coursework of teachers on students' academic performance.

The above submissions on the factors that affect students' academic performance did not explore the importance of sleep as a possible factor that could impact academic performance. Hence, this study attempts to fill the gap by exploring the impact of sleep from Ian Oswald's restoration theory of sleep perspective on the academic performance of higher education students.

4.0 Importance of Sleep in the Promotion of Excellent Academic Performance

The definition and importance of sleep cannot be easily outlined. Defining sleep seems like defining life. The issue of sleep could not easily be comprehended. Sleep could be described as a natural periodic resting state of the mind and body. During this rest period, the eyes are usually closed, and consciousness is wholly or partly lost for decreased bodily movement and

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responsiveness to external stimuli (Stevenson 2014, 11). This definition may sound a little weird, but the most critical take is that it is a natural periodic resting state of the mind and body. The description by Stevenson suggested that if sleep is not done correctly, it is no sleep. Sleep should be entirely natural for it to be regarded as sleep. Staying awake is generally catabolic, while sleep is known to be an elevated anabolic state. Stevenson (2014, 15) opined that it could be challenging to experience the desired body and life if the body is denied the right quality and quantity of sleep.

The benefits of sleep on cognition and mental health could be employed for promoting excellent academic performance of students through exploring the Tenets of Ian Oswald's Restoration Theory of Sleep vis-à-vis the results of the unstructured interview. *[75 students in various higher institutions of learning (Universities, Polytechnics, Theological Institutions and Colleges of Education in Nigeria) were interviewed for the study. 40 out of the 75 students interviewed were average and above average in their academic performance, while the remaining 35 were students of below average academic performance.]*

4.1 Sleep is needed to recover energy lost throughout the day: the theory states that adequate night sleep is required for rejuvenation. Energy is used up during daily activities, and replacement is needed. The replacement could only be achieved by having a sufficient night's sleep. Students who sleep consistently at night were found to be more intelligent and brilliant than most who miss night's sleep regularly. Most of the students with excellent and high academic performance interviewed submitted sleeping at night as at when due and reported rare cases of missing night sleep. The report gathered from the interview agreed with the submission of Stevenson (2014,16) that sleep improves the growth and rejuvenation of human's immune, skeletal, and muscular systems. Sleep rebuilds the human body system and renews youthfulness. Adequate sleep (both in quantity and quality) fortifies the immune system, balances the hormones, boosts the metabolism, increases physical energy, and improves the brain's function.

4.2 Sleep is necessary for sound health: failure to get enough sleep will suffer consequences like weight gain, anger outbursts and memory loss. This study found that many students who fall sick during examinations fail to get enough sleep due to reading through the night in the name of preparation. Some interviewees reported

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cases of memory loss as a result of missing night's sleep. A sizeable number of interviewees recalled forgetting what was read overnight on getting to the examination hall, leading to failure in such examinations. This report is congruent with Scullin and Bliwise's submission that insufficient sleep increases the risk of high blood pressure, diabetes, obesity, stroke and depression. It is also associated with cognitive decline and Alzheimer's disease (Scullin and Bliwise 2015, 102). Students suffering from ill health could hardly have excellent academic performance, and inadequate sleep could lead to ill health if not given prompt attention.

4.3 Consistency in the timing and quality of sleep is essential for the body and brain restoration: getting the same amount of sleep at the same time every night could help in maintaining a healthy weight, and it could also bring an improvement upon the body immune system thereby reducing the risk of developing chronic diseases. The interview results show that most students with high academic performance have consistent sleeping time. It was discovered that sleeping on comfortable beds with neat bedsheets enhances sleep quality which invariably enhances body and brain restoration. The result of the interview agreed with the submission of Grandner (2020,323) that a change in sleep pattern could affect the restorative process of sleep.

A sleep pattern is a timer that the body uses to understand sleeping and awake time. The circadian body clock controls sleeping time in the brain's depths. Maas (2012, 56) submitted that once the body clock decides the time to rest, it will work with other body functions to help prepare for the night's sleep. It will also stop the various bodily functions associated with being awake. The reverse occurs when it is time to wake. Bennett, Walker & Hornes (2018, 5691) submitted that a sleep-wake cycle is developed from birth and is guided by cues to decide sleep's proper time. Human bodies adjust naturally to the sleep-wake cycle in line with the day and night cycle. Touitou, Reinberg & Touitou (2017, 96) corroborated Bennett et al. by stating that the Melatonin hormone naturally secretes in darkness to promote sleepiness and suppresses itself during daylight to promote awakeness.

4.4 Good and enough night sleep helps to stay focused and productive during the day: Enough sleep, both in quantity and quality, enhances staying focused and effective in the daytime. Interactions with students with good and excellent academic performances in the sampled higher institutions show that most

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have enough night sleep and reported a high activity and productivity rate during the daytime. The ability to stay focused is capable of enhancing academic performance. Samson (2020,23) posited that sleep deprivation throws off hormone levels in the human body. Serotonin, dopamine and cortisol hormones which affect thoughts, moods and energy for productivity, are thrown off balance whenever the body lacks sleep. Students who desire to stay focused and productive should endeavour to sleep well constantly. Staying focused could foster excellent academic performance.

4.5 Sleep helps in making more profound decisions: Achieving excellent academic performance calls for thoughtful decision-making, which could be made possible only if the brain is optimally functioning. Without sleep, human cognitive and emotional abilities become markedly disrupted. The longer the duration of sleep deprivation, the worse the accumulating attention deficit. Deciding to study for excellent academic performance could be impossible with adequate sleep. The interview results revealed that students with outstanding academic performances made profound decisions at one point or the other, and they were able to make the decisions because their cognitive and emotional abilities were not in any way disrupted.

5.0 Conclusion and Recommendations

The study investigated how the tenets of Ian Oswald's restoration theory of sleep could be employed to promote excellent academic performance of higher education students. The study's findings revealed that adequate sleep could enhance excellent academic performance as many advantages of night's sleep were highlighted, and the interview reports substantiated the existing data on the importance of sleep. The study, therefore, recommends adequate sleep for students of higher education who desire excellent academic performance.

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