

Insomnia Syndrome among Nigerian Secondary School Students and Its Effects on Learning: Implications for Counselling

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I. INTRODUCTION

Insomnia as a sleep disorder have consistently attracted the interest of researchers. Nigerian students are at risk of this disorder (Maduachi, Obu, Chukwu, Aromu, Mayinke and Chinewa 2014). Hence, attention has to be given to it in order to find ways of prevention and cure for the challenge. In pursuit of this goal, the study considered the concept of insomnia, prevalence and its effects on learning, implications for counselling and recommendations. The paper is a modest contribution to knowledge with the aim of drawing research attention to an area that is relatively begging for more research contributions to boost local content. This is because Nigerian research literature on insomnia and its effects on secondary school students' learning is limited.

Adolescence stage comes with a variety of changes in the lives of students globally. Nigeria is certainly not an exception. Some of these changes are biological and quite a lot are psychological. As the adolescent seeks to consolidate his quest for independence, he may run into life stressors like drug abuse, alcoholic abuse, and sleep deprivation as a result of increased nocturnal activities. Some of these stressors can lead to the onset of psychological disorder, and in some cases to psychosomatic disorder, the latter being a disorder that affects both the mind and body. Insomnia which is the focus of this paper has contributed in no small measure to academic under-achievement of secondary school students as a result of impaired learning processes. Insomnia is a sleep disorder that causes inadequate sleep as a result of poor sleep initiation, sleep maintenance, and consistent wakefulness. The sufferer of insomnia has difficulty falling asleep, staying asleep and experiences frequent waking up during the night with difficulty going back to sleep. It is also characterized by waking up too early in the morning, or having unrefreshing sleep (APA 2013; WHO 1992).

The prevalence of this disorder and its impacts or effects have been consistently reported by researchers. The Nigerian student as a result of traumatic events, poor living conditions and night activities have increasing possibility of this disorder. Lack of awareness has allowed insomnia to continue to make unfettered incursion into the learning domains of students, with the propensity of leaving behind colossal negative effects on their academic output. Research findings have reported that those who are victims of insomnia are three times in danger of experiencing mental health challenges than people without insomniac disorder (Ohayon and Roth, 2003). Seiberling (2011) observed that un-refreshed sleep was gradually becoming an epidemic as a result of individuals showing negative correlation between insomnia and impairment of daily functioning. This finding portends danger to the Nigerian students who are faced with multiple challenges that can precipitate insomnia disorder. Again, reports on insomnia and implications on learning is relatively scarce within the Nigeria academic parlance- especially in the field of guidance and counselling to be more specific. Without literature on prevalence and effects on learning, it will be difficult for informed decision to be taken to curb the challenges insomnia is likely to cause in the educational set up of the country. The school guidance programme is in dire need of more information on the issue at stake to broaden the horizons of professional counsellors who are saddled with the responsibility of helping students to live a well-adjusted life. In providing an answer to this prevailing challenges, this paper is an attempt to make a modest contribution to knowledge by reviewing available literature on insomnia and its effects on learning with emphasis on Nigerian secondary students who are at risk of the menace of this disorder. Hence, the aim of this paper is to add a voice in addressing insomnia as a potent variable behind poor learning of students and by extension poor academic performance. To achieve this purpose, the paper will examine and critically evaluate the following:

The Concept of Insomnia

Sleep can be defined as a reversible, recurring and active state of reduced consciousness that consolidates learning and memory; it promotes growth, repair and restorative processes through the brain and the body (Benington, 2000; Diekelman and Born, 2010). The ideal adolescent needs 9 hours and 15 minutes of sleep, children need 10 hours and adults need 8 1/4 hours (Kutluhan ,Ayse , Neriman, and Seval, 2011). Insomnia which is a psychological disorder characterized by inability to have sufficient sleep have been observed to be responsible for poor daily functioning. Insomnia symptoms meet diagnostic criteria when it causes one to have inability to experience restorative sleep. This non restorative sleep, can be linked to insomnia if it is not created by any other condition or disorder, and symptoms must have persisted for at least three months even when the chance of refreshing sleep is available. Daily functioning must also be impaired before it can be said to be an insomniac disorder. Formally, insomnia caused by other disorders was called secondary insomnia, and what is now called insomnia disorder was called primary insomnia (APA 2013). Insomnia is a sleep disorder that can be caused by psychological, environmental, and biological factors (Spielman and Glovinsky, 1997). It means sleeplessness that emanates from trouble with sleep initiation (falling asleep), Sleep maintenance (remaining asleep), sleep duration (waking early in the morning), and/or non-restorative sleep (waking up and feeling un-refreshed) (Johnson, 2006; Poceta and Mitler, 1998). Individuals who suffer from insomnia are usually tired and feeble in the day time because they had problem falling asleep or staying asleep at night. Insomnia impairs daily functioning. It can be short term (acute) or long term (Chronic). Acute type may last for days while the chronic one may last for months. Temporary insomnia is caused by anxiety, stress, hunger, frustration and excess happiness. Non- restorative sleep has been found to be a predictor of other psychological disorders like depression, anxiety, stress and other psychotic disorder. Insomnia involves unrefreshed sleep which is manifested by difficulty falling asleep, staying asleep or frequent unwanted waking (Lacks and Morin, 2010).

Findings have shown that normal night's sleep are in two forms. One is called REM sleep (rapid eye movement) or dream sleep, and non-REM (non- dream) sleep (Kryger, Both, and Dement 2005). A sleeper begins his sleep from Non-REM sleep which has four distinct stages. The sleeper begins stage one sleep which is known as shallow sleep when the alpha waves that are present during wakefulness fades (Colten, and Altevoght, 2006). He soon experiences drowsiness of the shallow sleep. This stage lasts between 30 seconds and 7 minutes. The second stage is known as true sleep. 20 percent of the night is said to be spent in this stage. The sleeper may feel thoughts or images in his mind, but will be unconscious of what is happening around him, could not see anything even with opened eyes. Stages three and four are called deeper and deepest stages and are called the delta sleep. The brain and body undergo a process of restoration and repair. Growth takes place also at this stage. Those who do not experience the delta stage of sleep encounter fatigue, tiredness, weakness, apathy, or even depression, the following day (Bootzin, 1978). After the Non- REM sleep comes The REM sleep stage which is marked by dreaming occurs every 90 minutes. It is dangerous not to experience delta sleep. This is because the body will not undergo restoration and that can affect effective daily functioning.

Causes of Insomnia

Insomnia is caused by hereditary, biological, Physiological traits, and psychosocial stressors. Gregory, Rijdsdijk, Lau, Dabi, and Eley opined that hereditary factors might be the cause of insomnia. This view holds that insomnia is caused by the predisposition of heredity traits. Bonnet and Arand (2010) postulated that high physiological arousal and activity levels across the 24 hour sleep can make people to develop insomnia. Stress-diathesis model of insomnia which observed that insomnia is likely to emerge from a link between predisposing factors of genetic, physiological, psychosocial and medical variables have been agreed upon among researchers (Bonnet and Arand, 2003). Lifestressors have been implicated as predictors of insomnia. Drake, Pillai, and Roth (2014) in a longitudinal research involving over 2,300 adults observed that premorbid trait sleep reactivity interfaces with life stressors and causes cognitive intrusion which can trigger insomnia disorder two years later. Females are believed to be prone to insomnia more than males. Zhang and wing (2006) put the male /female ratio at 1.41 at 95% at confidence interval: 1.28-1.55. This difference was generally connected to biological factors in some studies. The researchers cited Stattin and Magnusson (1990) to conclude that social pressures on girls as a result of the onset of puberty are more than those of boys, and could be the reason behind the difference. Ohayon (2002) also submitted that women were prone to the disorder more than men. Studies showed strong relationship between insomnia, depression, and anxiety, with insomnia as the predictor of others (Gregory and O'Connor, 2002). Ohayon, (2002) opined that insomnia was a prevalent variable predicting the development of mood disorders by showing evidence of over 80% of subjects with major depressive disorders.

Prevalence of Insomnia

Gaultney (2010) observed that about 70 million Americans met diagnostic criteria for insomnia. In another study, 2.2 million people were reported to have shown symptoms in Hong Kong (Wong and Fielding, 2011). Also, in a study conducted in Saudi Arabia by Alfakhri, Sarraj, Kherallah, Kuhail, Obeidat, and Abu-zaid

(2015) confirmed prevalence of insomnia as the researcher reported that 78.8 % of students confirmed sleep deprivation with attendant impairment in daily functioning. This shows the prevalence of insomnia among students. Buboltz, Brown, and Soper (2001) observed a prevalence of 15% of college students with unsatisfied quality of sleep in a study. Lowry, Dean, and Manders (2010) carried out a survey on college students around the campus of the University of Minnesota and noted sleep deprivation among students. Gaultney (2015), in a study examined the prevalence of risk for sleep disorders among college students by gender and age, and their relationship with grade point average (GPA) with Participants of 1,845 college students at a large, south Eastern public university and confirmed prevalence.

Joshy Abraham, and Jaimy Scaria (2015), in a study titled: *Influence of Sleep in Academic Performance – An Integrated Review of Literature*, reported findings that were observed from 17 articles in a review based on studies conducted in 7 countries: Saudi Arabia, USA, Lebanon, Australia, Brazil, Iran, and Taiwan. The researchers showed that majority of the studies showed decreased sleep which confirmed prevalence of insomnia among the students. A similar study was conducted by Haile, Alemu, and Habtewold (2017) on “*Insomnia and Its Temporal Association with Academic Performance among University Students: A Cross-Sectional Study*”, revealed that 9.4% to 38.2% of university students suffered from insomnia. The cross-sectional study was conducted with 388 students at DebreBerhan University.

In a similar way, researchers have reported that 32.5% to 62.3% in Nigerian, Libyan, and Egyptians universities have been diagnosed with insomnia (Ibrahim and Abouolezz, 2011; Omoregba and Igerase, 2011; Taher, Samud, Ratimy, and Seabe, 2012). In another development, Maduachi, Obu, Chukwu, Aronu, Manyike, and Chinawa (2014) conducted a research in Nigeria to investigate sleep habits using a random sampling of adolescents from secondary schools from February to April 2013 and reported prevalence of sleep deprivation.

So far one can say that insomnia is prevalent in Nigeria and the Nigerian secondary school students are seriously at risk of the disorder. The need for proactive measures to curtail the menace cannot be over emphasized.

Effects of Insomnia on Learning

Literature is relatively limited on insomnia in terms of its relationship or effects on academic performance or learning in general. However, from literature available, insomnia has featured prominently and measures to deal with it as a psychological disorder is necessary.

Sleep deprivation, sleep inadequacy, daytime sleepiness or insomnia affects learning activities of students. The review of related literature gives us deep insight on insomnia and its effects on students' learning. Sleep helps to moderate the body metabolism, provides the enablement for the muscles to obtain restorative repairs and gives people concentration capacity (Lindsely, Hartman & Mitchell, 2011). Lack of refreshing sleep signals learning distress and challenges for students, specifically adolescents. Peters, Joireman, and Ridgeway (2005) have described “sleep patterns” as a process associated with four variables “self-rated satisfaction with sleep”, “sleeping during the day”, “difficulty sleeping at night”, and “oversleeping”. Buboltz, Brown, and Soper (2001) postulated in a study that 15% of college students were uncomfortable with their sleep quality. Manders (2010) carried out a research to investigate the relationship between grade point average (GPA) and sleep quality and quantity. The survey was carried on college students around the campus of the University of Minnesota to observe the rate of sleep deprivation and sleep quality in order to establish effects on learning. Six factors were examined from the research subjects which included: sleep quality using Groninger Sleep Quality Questionnaire, academic success, and four areas of sleep quantity. Results confirmed a significant positive relationship between quantity of sleep per night with GPA, and a significant negative association between average number of days per week that students slept for less than five hours and GPA. The report of this research showed the relationship between quality of sleep and academic performance. This shows that insomnia has a negative association with learning potentials of students.

Machado-Duque, Echeverri, Machado – Alba (2015) conducted a study in Spain and observed that about 49.8% of students met excessive daytime sleepiness criteria, and 79.3% , poor sleepers. The study revealed 43.3% had poor academic performance in a previous semester. The researchers reported that Sleep efficiency < 65% related with poor academic performance (P=.024; OR = 4.23; 95% CI, 1.12-15.42) in the multivariate study. A study carried out in Saudi Arabia by Alfakhri, Sarraj, Kherallah, Kuhail, Obeidat, and Abu-zaid (2015) showed that 78.8 % of students reported that sleep deprivation impacted negatively on their academic output. Ram, Seirman, Kumar, and Clark (2010) on their part, noticed in their research that reduced memory could be a result of lack of sleep; Pitchers and Walters (1997) confirmed reduced cognitive ability in their findings. Findings in studies have shown that learning or academic performance in school corresponds to quality of bed time, fewer night time wakefulness, less napping and refreshing sleep (Link and Ancoli-Israel, 1995; Hoffmann and Steenhof, 1997; Wolfson and Carskadon, 1998).

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review based on researches carried out in 7 countries: Saudi Arabia, USA, Lebanon, Australia, Brazil, Iran, and Taiwan. The studies revealed that decreased sleep had effects on learning. The researchers also observed that insomnia had affected day time functioning of the respondents. They observed that most of the students were at risk of insomnia, with possible negative correlation with poor learning or academic under-achievement.

A research conducted in Nigeria by Maduachi, *et al* (2014), examined sleep habits using a random sampling of adolescents from secondary schools from February to April 2013. They argued that ideally adolescents need 9 hours and 15 minutes of sleep, children need 10 hours and adults need 8 1/4 hours (Kutluhan, Ayse, Neriman, and Seval, 2011). They emphasized that some of the reasons for the short sleep period among adolescents could be early school start time, inability to fall asleep until late at night, their boisterous and energetic social life and homework to do. The study emphasized that some of the respondents representing 14.4% (64/443) reported that they had high chance of falling asleep while sitting and reading. The cause of 'falling asleep while sitting and reading' cannot be far from insomnia with its negative effects on learning. For a student to fall asleep while sitting and reading is an indication of learning impairment. This can affect academic output of such students

Literature review on insomnia and its effects on learning and academic performance shows that insomnia is negatively correlated to learning. Nigeria adolescents, particularly, students of secondary schools are at risk of insomnia and its resultant negative challenges on their learning capacities. The risk factors are everywhere, thereby increasing the risk of the disorder. Adolescence is a period of physical, cognitive, emotional, and social changes which can affect the adolescents' sleeping pattern. Sleep disorders like insomnia can affect or disrupt their daytime functioning. Johnson *et al.*, (2006), argued that adolescents needed more sleep than pre-puberty in order to perform effectively, but observed that they seemed not to be getting enough sleep. Carskadon and Acebo, (2002), noted that the ideal hours of sleep for adolescents for fruitful functioning is 9 to 9.25 hours of sleep per night. This number of hours of sleep recommended has been shown by research that most adolescents before grade 12 had less than 7 hours of sleep per night (O'Brien and Mindell, 2005; Wolfson and Carskadon, 1998). It could thus be seen that the Nigerian secondary school students also face insomniac challenges with their effects on learning.

Implications for Counselling

A study like this has a lot of implications for counsellors, especially school counsellors who are in charge of students. Students who observe poor quality sleep at night cannot perform very well during learning activities. The counsellor is to ensure the mental and emotional stabilities of students so that learning can effectively take place. Counselling is an interactive helping process aimed at helping a troubled individual. The school counsellor should periodically carry out a diagnostic process on the students to know their insomnia statuses. This will help him to know how to help students to overcome insomnia and the learning challenges that go with it.

Counsellors should take advantage of the morning assemblies and other similar gatherings of students to explain the importance of restorative sleep. Insomnia as a sleep disorder should be exposed to students. It will be helpful for the counsellor to point out the risk factors so that students can avoid life styles that can trigger insomnia. Some students may have hereditary predispositions to the disorder. They can be helped by counsellor with early diagnoses and proper sleep behaviour enlightenments.

II. CONCLUSIONS

This paper looked at Insomnia syndrome among Nigerian students and its effects on learning: implications for counselling. The study considered the concept of insomnia, causes, prevalence, and effects on students' learning. The paper attempted to review literature on insomnia with interest in its effects on Nigeria students' learning.

III. RECOMMENDATION:

Looking at what has been pointed out so far, it is necessary to make some recommendations at this stage. The paper has opened the door for research to be conducted in this area. Researchers are expected to do more so that we can have more literatures that are more focused on insomnia and learning among Nigerian secondary school students. Most of the literature available lack the local content that can bring out the peculiarities of the disorder on the Nigerian students. The Nigerian government at all levels needs to empower counsellors in secondary schools with requisite knowledge and training that will make them transcend beyond mere career masters. Modern counsellors must have basic knowledge and training to be able to keep pace with the complexities of human behaviour, precisely, insomnia

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