

Reduced Mental Concentration: Insomnia During Covid-19 Lockdowns Among High School Learners In Mwala Location, Machakos County, Kenya

Roselyne Mueni Kisong'e*
Mokua Gilbert Maroko

Abstract

Mental concentration during the COVID-19 pandemic has escalated and become an issue of concern. This study set out to investigate the extent to which insomnia affects mental concentration. The research will take place in five schools in Mwala sub-county in Machakos County. Mwala sub-county is located within Machakos County. The study sampled 117 participants among high school learners. The analysis showed a statistically significant difference between insomnia and mental concentration at $F(1,115) = 531.35, p = 0.023$. This study reveals that insomnia causes reduced mental concentration. Implications of the study are discussed.

Keywords: Mental concentration, Insomnia, COVID-19, Lockdowns, Mwala Location, Machakos County

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I. Introduction

Learners in high school are at a high risk of losing mental concentration due to lifestyle changes and routines. During the prolonged covid-19 quarantine, the Kenyan government imposed partial lockdown because of the quick spread of Coronavirus in March 2020. Therefore, this might have compromised their mental concentration hence affecting their academic performance. The partial lockdown practically quarantined the learners in their homes, and thus the most frequent occupation was sleeping since most activities like playing with peers were limited. Although COVID-19 has arisen as of late, a few examinations have effectively been refined to look at its mental results however, little has been done on the effect of rest issues on psychological fixation during the crown pandemic, principally in China, the USA, Europe, and in other agricultural nations like Kenya, because of the strange idea of this pandemic.

Rose et al, (2019) found that teenage mental health is a priority in the Americans societal health, and that the government should strengthen aspects associated to social workers' master's level abilities to engage and treat kids with mental health issues. Physiological stress may play a role in both physical and mental illness, and these links have been found to correlate with stress responses over time (Kornelson et al, 2019). Learners are faced with a variety of worries as a result of their age. Stressors for students include being away from home, being separated from family, moving to a new climate, instructional challenges and issues, rivalry with other students, and quarters life. Continuous long-haul pressure can lead to physical and emotional issues. Oltean et al, (2020) discovered that psychological distress in children with a state of being is widespread and adversely affects the child's long-term personal happiness. In Australia, the situation is similar, with particularly concerning evidence coming from indigenous people (Cottom et al, 2016). Calma, Dudgeon & Bray (2017) reminded the audience during the inaugural Australasian Mental Health and Higher Education Conference that, the overall native suicide rate was twice that of other Australians in 2015. The address pointed out that suicide and self-harm have increased dramatically in the last 30 years, with young Aboriginal people (17-23 years) being the most vulnerable. Schuttle, Torquati and Beattie (2017) discovered similar effects of walking in nature as a catalyst for restoring on-task attention and improving executive functioning skills in Minnesota, USA. Similarly, in Maryland and Colorado, one qualitative study captured the comments of children who had access to natural ecosystems, school gardens, and forested playgrounds. Children reported stress alleviation and greater focus (Hyatt, 2019). Gardening activities were mentioned by 98 percent of the participants. Schutte, Torquati and Beattie (2017) have shown that frequent subjection to outdoor environments provides relaxation from mental exhaustion and increases directed attention. The study found that adolescents who interacted with nature daily maintained focus and demonstrated higher cognitive functions while in the classroom. In the classroom, natural elements boost student productivity, directed attention, alertness, and general attentiveness. Details about

the duration, frequency, and benefits of contact with natural surroundings differ every study, but the overall message supports nature as a therapy for psychological recovery.

According to studies done in China, the initial country to be affected, behaviors like increase in both tobacco and alcohol consumption, stress disorders, somatization, anxiety and depression have all been related to the fear of a pandemic (Qiu et al, 2020). Furthermore, the country's strict curfew had an impact on people's lives in various aspects, leading to a variety of issues such as despair, anxiety and panic disorder.

A considerable body of evidence suggests that, the Covid-19 has had a significant impact on people's psychological well-being and behavior, with few studies contradicting this finding (Gijzen, et al. 2020). In China, undergraduates have more free time after class sessions than more youthful students. Furthermore, classes and assignments in colleges should be completed with the help of the Internet on a regular basis. As a result, undergraduates have greater freedom to use the Internet and are more susceptible to developing an Internet addiction. Rest problems, for example, a sleeping disorder for undergraduates with Insomnia are likewise issues of incredible worry to us. Past examinations have revealed that undergraduates with IA have altogether decreased rest quality and amount (Mohammadbeigi et al, 2016). Only a few studies have been undertaken among college students, and they are largely among clinical students (Siddiqui & Singh, 2016). A few risk factors in relation to sleep deprivation have been accounted for. In many studies, segment characteristics like as age and sex, as well as social elements such as resting hygiene, actual ailments, and mental issues, have been identified. The connection among rest and scholastic education is grounded. In USA insufficient rest among the undergraduates prompts expanded tiredness and daytime sluggishness, which accordingly diminishes mental readiness and focus (Reisi et al, 2017). This can influence the capacity to manage errands including critical thinking, memory, and meticulousness.

Desouky, Lawend and Awed (2015), from Nursing undergraduates in Nigeria, have a rigorous course load that necessitates both arduous labor and adequate rest. They further expressed that as a result of the connection between rest, memory arrangement and learning, rest is of most extreme significance to nursing undergraduates, notwithstanding, when nursing undergraduates continue school, their rest propensities and examples changes. These undergraduates ordinarily begin rehearsing a rest design that is described by lack of sleep. Several researches have been conducted in relation to sleep deprivation and academic performance, with the majority of the findings emphasizing the negative effects of sleep deprivation on academic performance (Hershner &Chervin, 2014).

Sleep deprivation is a typical rest issue influencing a critical extent of everybody in Ethiopia. College learners are accounted for to have high paces of sleep deprivation. A sleeping disorder had a weighted mean commonness of 18 percent among this group, which is higher than its rate of occurrence in everyone, according to a precise survey. According to Byrd and Manuck, (2014) commonness of a sleeping disorder among undergraduates in Ethiopia was pretty much as high as 61%, while another investigation discovered it to be 44.7%. Sleeping disorder side effects are broad, however they can likewise affect life change. Rest unsettling influences are known to influence both scholarly and work environment execution. Also, rest assumes a fundamental part in intellectual capacities like judgment, just as memory union and review, factors which are indispensable for scholastic execution (Haile et al, 2017).

Insomnia in undergraduates is related with mental conditions like despondency and uneasiness, just as with specific practices, for example, substance misuse and helpless rest propensities. Substance misuse has been found to influence numerous parts of rest wellbeing. Tension is quite possibly the most ordinarily detailed general mental issues in college undergraduates. Nervous issues can emerge from different mental issues or testing circumstances throughout everyday life. Among school or college undergraduates specifically these can incorporate apprehensions or worries about scholastic execution, considerations about the future, and other prevailing difficulties. Helpless rest cleanliness practices can have an impact on both the quality and quantity of rest, and thus on daytime productivity. While these life transition issues often occur among undergraduates, they frequently go unnoticed by the actual undergraduates, and the more extensive health ramifications of insufficient rest are frequently overlooked. Cho, Song, & Morin, (2014) noticed varieties of the commonness of Insomnia disorder or on the other hand Insomnia manifestations during a year time span with month-to-month evaluations in South Africa. For example, the designers noticed that a significant portion of the wonderful sleepers at the development had detailed Insomnia indications (48.6%) or Insomnia (14.5%).

II. Methods

The study used a research design that entailed quantitative data. Multistage sampling procedure was used to select 117 participants for the study. Data was collected using questionnaires. Data was analyzed using descriptive statistics such as percentages, means, standard deviation and inferential statistics namely ANOVA at 0.05 level of significance.

III. Results and Discussions

The second objective was to determine the extent to which insomnia affects mental concentration among high school learners in Mwala location, Machakos County, Kenya. Results are shown in Table 1.

Table 1: Effects of Insomnia on Mental Concentration

		Mental concentration					
		No reasonable mental concentration challenges	Meager concentration	Average severity of mental concentration	Terrible severity of mental concentration	Total	
Insomnia	No serious lack of sleep	Count 34	2	1	0	37	
	% within Insomnia	91.9%	5.4%	2.7%	0.0%	100.0%	
	Meager lack of sleep	Count 3	6	0	0	9	
	% within Insomnia	33.3%	66.7%	0.0%	0.0%	100.0%	
	Moderate lack of sleep	Count 0	7	5	5	17	
% within Insomnia	0.0%	41.2%	29.4%	29.4%	100.0%		
Severe lack of sleep	Count 0	0	19	35	54		
	% within Insomnia	0.0%	0.0%	35.2%	64.8%	100.0%	
Total	Count	37	15	25	40	117	
	% within Insomnia	31.6%	12.8%	21.4%	34.2%	100.0%	

In Table 1, 91.9% of the respondents with no serious lack of sleep had no reasonable mental concentration challenges, 5.4% had meager concentration, 2.7% had average severity of mental concentration and none had terrible severity of mental concentration. Of respondents with meager lack of sleep, 33.3% had no reasonable mental concentration challenges, 66.7% had meager concentration, none had average severity of mental concentration and none had terrible severity of mental concentration. With respondents with moderate lack of sleep, none had no reasonable mental concentration challenges, 41.2% had meager concentration, 29.4% had average severity of mental concentration and 29.4% had terrible severity of mental concentration. None of the respondents with severe lack of sleep had no reasonable mental concentration challenges, none had meager concentration, 35.2% had average severity of mental concentration and 64.2% had terrible severity of mental concentration. This study reveals that insomnia causes reduced mental concentration.

To determine the significance of the effect of insomnia on reduced mental concentration, an ANOVA test was used to test the hypothesis that there is no statistically significant relationship between insomnia and mental concentration in high school learners. The level of significance was set at 0.05 and results are presented in Table 21.

Table 2: ANOVA of Insomnia on Mental Concentration

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	150.012	1	150.012	531.350	.000 ^b
	Residual	32.467	115	.282		
	Total	182.479	116			

a. Dependent Variable: Mental concentration

b. Predictors: (Constant), Insomnia

Table 2 shows that the significance value is 0.000 ($p = .000$) which is less than 0.05. There is a statistically significant difference between insomnia and mental concentration at $F(1,115) = 531.35$, $p = 0.000$. The hypothesis proposing no relationship between insomnia and mental concentration is rejected.

Lack of developing sleep or sustaining sleep disrupted mental concentration of the respondents. The respondents were exposed to long hours watching television and the internet. This made them to experience insomnia. This finding collaborate the study findings of a study where undergraduate students spend more time on the internet doing assignments ended up experiencing insomnia (Mohammadbeigi et al, 2016). This study further mirror on some studies that found a connection among rest and scholastic education. In USA insufficient rest among learners prompts expanded tiredness and daytime sluggishness, which accordingly diminishes mental readiness and focus (Reisi et al, 2017). This can influence the capacity to manage errands including critical thinking, memory, and meticulousness.

The connection between rest, memory arrangement and learning, enhances mental concentration. There exists a relation between sleep deprivation and academic performance, with the majority of the findings emphasizing the negative effects of sleep deprivation on academic performance (Hershner &Chervin, 2014).

This finding is in agreement with a study in Ethiopia where college learners with sleep deprivation were found to have low academic achievement according to Byrd and Manuck (2014).

Implications

Activities such as prolonged internet surfing that result in delayed sleep and intermittent sleep causes reduced mental concentration. There is need for parents and teachers to control their children's playtime activities and pave way for optimal sleep hours to enhance mental concentration.

IV. Conclusion

The COVID-19 pandemic is here to stay. Therefore, lockdowns are likely to be imposed whenever infections spike to alarming levels. Parents should be aware that despite the effects of insomnia on mental concentration occasioned by COVID-19 lockdowns, they should always be in charge of what children do whenever indoors or at school as this may provide mitigations to reduced mental concentration consequences.

References

- [1]. Byrd, A. L., &Manuck, S. B. (2014). MAOA, childhood maltreatment, and antisocial behavior: meta-analysis of a gene-environment interaction. *Biological psychiatry*, 75(1), 9-17.
- [2]. Calma, T., Dudgeon, P., & Bray, A. (2017). Aboriginal and Torres Strait Islander social and emotional wellbeing and mental health. *Australian Psychologist*, 52(4), 255-260.
- [3]. Cho, Y. W., Song, M. L., & Morin, C. M. (2014). Validation of a Korean version of the insomnia severity index. *Journal of clinical neurology*, 10(3), 210-215.
- [4]. Cotton, S. M., Filia, K. M., Ratheesh, A., Pennell, K., Goldstone, S., &McGorry, P. D. (2016). Early psychosis research at Orygen, the National Centre of excellence in youth mental health. *Social psychiatry and psychiatric epidemiology*, 51(1), 1-13.
- [5]. Desouky, E. M., Lawend, J. A., & Awed, H. A. M. (2015). Relationship between quality of sleep and academic performance among female nursing students. *International Journal of Nursing Didactics*, 5(9), 6-13.
- [6]. Gijzen, M., Shields-Zeeman, L., Kleinjan, M., Kroon, H., van der Roest, H., Bolier, L., ...& de Beurs, D. (2020). The bittersweet effects of COVID-19 on mental health: Results of an online survey among a sample of the Dutch population five weeks after relaxation of lockdown restrictions. *International Journal of Environmental Research and Public Health*, 17(23), 9073.
- [7]. Haile, Y. G., Alemu, S. M., &Habtewold, T. D. (2017). Insomnia and its temporal association with academic performance among university students: a cross-sectional study. *BioMed research international*, 2017.
- [8]. Hershner, S. D., &Chervin, R. D. (2014). Causes and consequences of sleepiness among college students. *Nature and science of sleep*, 6, 73.
- [9]. Hyatt, R. (2019). The Effects of Outdoor Activity on Concentration.
- [10]. Kornelsen, E., Buchan, M. C., Gonzalez, A., & Ferro, M. A. (2019). Hair cortisol concentration and mental disorder in children with chronic physical illness. *Chronic Stress*, 3, 2470547019875116.
- [11]. Mohammadbeigi, A., Absari, R., Valizadeh, F., Saadati, M., Sharifimoghadam, S., Ahmadi, A., ...& Ansari, H. (2016). Sleep quality in medical students; the impact of over-use of mobile cellphone and social networks. *Journal of research in health sciences*, 16(1), 46.
- [12]. Oltean, I. I., Perlman, C., Meyer, S., & Ferro, M. A. (2020). Child mental illness and mental health service use: Role of family functioning (family functioning and child mental health). *Journal of Child and Family Studies*, 29(9), 2602-2613.
- [13]. Reisi, M., Jalilian, R., Azizi, G., Rashti, A., Faghihinia, J., Akbari, M., Babaei, N., Sayedi, S. J., Rezaei, N., & Modaresi, M. R. (2017). Academic performance, sleep disorders and their association in middle school students in Iran. *International Journal of Pediatrics*, 5(3), 4541-4549
- [14]. Rose, T., Leitch, J., Collins, K. S., Frey, J. J., & Osteen, P. J. (2019). Effectiveness of youth mental health first aid USA for social work students. *Research on Social Work Practice*, 29(3), 291-302.
- [15]. Siddiqui, S., & Singh, T. (2016). Social media its impact with positive and negative aspects. *International journal of computer applications technology and research*, 5(2), 71-75.
- [16]. Schuttle, A. R., Torquati, J. C., & Beattie, H. L. (2017). Impact of urban nature on executive functioning in early and middle childhood. *Environment and Behavior*, 49(1), 3-30.

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