

NOCTURNAL DIGITAL MEDIA USAGE AS PREDICTOR FOR INSOMNIA RISKS AMONG UNIVERSITY LECTURERS IN SELECTED TERTIARY INSTITUTIONS, LAGOS STATE, NIGERIA

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Abstract

Nocturnal digital media usage is a common practice among the 21st century lecturer which predisposes them to unpalatable health outcomes. This study examines the relationship between nocturnal digital media usage and insomnia risks among university lecturers in selected tertiary institutions in Lagos State, Nigeria. This study adopts the correlational research design. Two research questions and hypotheses were postulated to guide the study. Population of this study comprised all university lecturers across selected institutions within Lagos State, from which a sample of 300 lecturers was purposively selected. Data were collected using a structured instrument titled "Nocturnal Digital media Usage and Insomnia Risks Questionnaire (NDMUIQ)," while a Cronbach's alpha coefficient of 0.78 was gotten which is appropriate. The questionnaire was administered through an on-the-spot distribution and retrieval method. Data analysis involved descriptive statistics (frequency counts and percentages) for the demographics and inferential statistics of regression analysis tested the hypotheses at a 0.05 level of significance. Therefore, this finding reveals that there was no significant relationship between binge-watching streaming content and insomnia risks among university lecturers in Lagos State ($r = 0.003$, $p = 0.000 > 0.05$). Further analysis showed a significant relationship between late-night social media engagement and insomnia risks ($r = 0.442$, $p = 0.000 < 0.05$). Based on these findings, the study recommends that management of tertiary institutions should develop awareness programmes ON the health implications of harmful digital habits while such initiatives should be aimed at promoting healthier digital behaviours and improving sleep hygiene among academic staff.

Keywords: Binge-watching streaming content, Late night social media engagement, Insomnia risks

Introduction

In the digital age, the pervasive integration of technology into daily life has significantly altered behavioural patterns across various professional groups, including academia. Among university lecturers, the ubiquity of digital platforms particularly social media and on-demand streaming services has introduced new challenges to health and well-being. While digital technologies have revolutionized academic communication, research dissemination and professional networking, their unregulated use, especially during late-night hours, poses notable risks to sleep health (Clemente-Suárez *et al.*, 2024).

Late-night digital activities such as prolonged engagement on social media platforms (e.g., Facebook, X, WhatsApp) and binge-watching streaming content (e.g., Netflix, YouTube, Prime Video) are increasingly common among lecturers who often seek post-work relaxation, academic information, or social connection online. However, these behaviours are associated with delayed sleep onset, fragmented sleep, and reduced sleep duration which are symptoms indicative of insomnia (Rabieiet *al.*, 2024). As insomnia is characterized by difficulty initiating or maintaining sleep, as well as poor sleep quality, its prevalence among professionals in intellectually demanding roles is concerning, particularly when viewed through the lens of occupational health.

Gikas and Grant (2023) revealed that cognitive demands placed on professionals such as lecturers may amplify the physiological and psychological impacts of late-night digital exposure, including disruptions in melatonin secretion due to blue light, and overstimulation caused by emotionally engaging or cognitively demanding digital content. The implication is a chronic erosion of sleep hygiene, which can diminish concentration, impair memory, and reduce daytime alertness which are essential factors for effective teaching and research output (Haghani *et al.*, 2024).

In Lagos State, Nigeria, lecturers often balance multiple responsibilities including lecturing, research, administrative tasks, and community service and as such many resorts to nighttime digital activities as coping mechanisms for stress or as flexible windows for social and personal entertainment. However, such coping strategies may be maladaptive when they intrude on critical sleep hours, ultimately compounding the risk of insomnia and its associated health consequences (Haleem *et al.*, 2022).

The health implications of these digital habits are profound (Iyanda & Akintaro 2016). Insomnia is not merely a personal inconvenience but a public health concern. Chronic sleep deprivation among lecturers can result in increased risk for cardiovascular disease, mood and anxiety disorders, cognitive decline, metabolic dysfunction, and burnout (Schmid *et al.*, 2021). These outcomes are not only detrimental to the individuals affected but also compromise institutional productivity, academic excellence, and student outcomes. Moreover, the systemic effects of impaired sleep among academic staff may elevate healthcare costs and diminish the quality of higher education delivery in the long term.

Despite the growing recognition of digital overuse as a determinant of sleep disturbance globally, there remains a paucity of empirical research focusing on the specific digital behaviours of university lecturers in Nigeria particularly in relation to late-night social media use and binge-streaming. Most existing studies concentrate on students, overlooking how these same behaviours affect those in teaching and leadership roles within the academic system (Isoqoviche *et al.*, 2024). Furthermore, demographic and occupational variables such as workload intensity, academic rank, and institutional expectations may influence both the patterns of digital use and their health outcomes among lecturers (Hidayat *et al.*, 2022).

Given these contextual realities, there is a compelling need to examine the relationship between nocturnal digital media usage specifically late-night social media engagement and binge-streaming and insomnia risks among lecturers in selected tertiary

institutions in Lagos State. The findings of this study will not only contribute to the growing discourse on occupational digital wellness but also inform institutional policies and health promotion strategies aimed at fostering healthier digital consumption patterns among academic staff.

The purpose of this study therefore, examined the relationship between nocturnal digital media usage and insomnia risks among university lecturers in selected tertiary institutions, Lagos state, Nigeria.

Methodology

The correlational research design was adopted because of its capability to examine the relationship between variables under study. The population for this study comprised of all university lecturers in selected tertiary institutions, Lagos State, Nigeria. The sample for this study were three hundred (300) university lecturers from selected tertiary institutions in Lagos State, Nigeria. Multistage sampling technique of stratified, convenience and purposive sampling techniques was adopted. In the first stage, stratified sampling technique was used in selection of the three senatorial districts in Lagos State. The senatorial districts include Lagos West, Lagos East and Lagos Central. Convenience sampling technique was used in selection of one tertiary institution from each of the senatorial districts which are University of Lagos from Lagos Central, Lagos State University from Lagos West and Lagos State University of Science and Technology from Lagos East. The third sampling technique adopted was used in selection of three hundred university lecturers. Each selected institution had respondents of one hundred each which totalled into three hundred respondents.

The research instrument for this study was a self-developed questionnaire titled "Nocturnal Digital media Usage and Insomnia Risks Questionnaire (NDMUIQ)". The questionnaire was divided into two sections: A and B. Section A contained demographic data of respondents, while Section B was structured to test the stated hypotheses. Further, the questionnaire adopted a four (4) point Likert modified scale ranging from Strongly agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). The face, construct and content validity of the instrument were ascertained by a panel of experts in the Department of Human Kinetics, Sports and Health Education and Department of Computer Science, Lagos State University, Ojo. The reliability of the instrument was obtained by administering twenty (20) copies of the validated questionnaire to twenty (20) respondents in a tertiary institution in Ogun State (Tai Solarin University of Education). The reliability of the instrument was tested using Cronbach Alpha technique and an R-value of 0.78 was obtained.

Three hundred (300) copies of the questionnaires were distributed and collected by the researcher with the help of three trained research assistants to the respondents. Copies of the administered questionnaires were checked to ensure that they were well completed. Daily review meetings were held at the beginning and end of each day with the research assistants, data collection lasted for two weeks. Data collected were analysed using descriptive statistics of frequency counts and percentages for demographic data

while the inferential statistics of regression analysis was used to test all stated hypothesis at 0.05 alpha level of significance.

Results

Hypothesis One

There will be no significant influence of binge-watching streaming content on insomnia risks among university lecturers in selected tertiary institutions, Lagos State, Nigeria.

Table 1: Relationship between binge-watching streaming content and insomnia risks among university lecturers in selected tertiary institutions, Lagos State, Nigeria.

Model	R = 0.008 R ² = 0.003 AR ² = 0.010 F = 3.413 Sig. = 0.634				
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
Constant	11.201	3.221		3.114	0.634
binge-watching streaming content	.432	.085	.521	2.032	0.001

From table 1, it could be observed that the influence of the independent variable (binge-watching streaming content) and the dependent variable (Insomnia Risks) could be predicted at 0.3% ($R^2=0.003$). It could further be observed that a non-significant F-value ($F=3.413$; $P>0.05$) was obtained. The hypothesis postulated is hereby accepted. This therefore implies that there is no significant influence of binge-watching streaming content on insomnia risks among university lecturers in selected institutions, Lagos State, Nigeria.

Hypothesis Two

There will be no significant influence of late-night social media engagement on insomnia risks among university lecturers in selected tertiary institutions, Lagos State, Nigeria.

Table 2: Relationship between late-night social media engagement and insomnia risks among university lecturers in selected tertiary institutions, Lagos State, Nigeria.

Model	R = 0.492 R ² = 0.442 AR ² = 0.382 F = 17.212* Sig. = 0.000				
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Constant	8.291	2.423		4.321	0.000
late-night social media engagement	.116	.210	.0221	.312	.001

From table 2 above, it could be observed that the influence of the independent variable (late-night social media engagement) and the dependent variable (insomnia risk) could be predicted at 44.2% ($R^2=0.442$). It could further be observed that a significant F-value

($F=17.212$; $P<0.05$) was obtained. The hypothesis postulated is hereby rejected. This therefore implies that there is a significant influence late-night social media engagement on insomnia risks among university lecturers in selected institutions, Lagos State, Nigeria.

Discussion of Findings

Hypothesis one revealed that there was no significant influence of binge-watching streaming content on insomnia risks among university lecturers in selected tertiary institutions, Lagos State, Nigeria. This finding presents an interesting perspective in the context of existing literature. Despite the positive t-value ($t = 3.114$) and a p-value greater than 0.05, the lack of statistical significance suggests that while some level of relationship might be observable, it is not strong enough to infer a definitive association between binge-watching and insomnia risk in this population.

This finding is in disagreement with Exelmans and Van den Bulck (2017) in their study on Binge viewing, sleep and the role of pre-sleep arousal conducted on young adults. They reported that binge-watching television series was associated with poorer sleep quality, greater fatigue, and higher levels of insomnia among young adults. The researchers posited that the cognitive arousal resulting from immersive viewing could interfere with the ability to fall and stay asleep. However, this population was not composed of academic staff, and contextual differences such as age, professional routines, and academic responsibilities may account for the discrepancy with the current study's findings.

Similarly, Lunsford-Avery *et al.*, (2020) in their study titled "Validation of the Sleep Regularity Index in older adults and associations with cardiometabolic risk" found that increased engagement with digital media, particularly through binge-watching platforms like Netflix and YouTube predicted delayed sleep onset, shorter sleep duration, and increased insomnia symptoms among university students. Their study suggested that the nature of streaming platforms, which often employ autoplay features and content recommendation algorithms, encourages prolonged viewing and disrupts natural circadian rhythms. Yet, university lecturers may have more structured schedules or more control over their screen time compared to younger populations, potentially buffering against such effects.

Conclusively, these contrasting findings underscore the complexity of the relationship between binge-watching and insomnia risk. Factors such as age, occupational demands, personal lifestyle habits, and sleep hygiene practices likely moderate this relationship. However, the lack of a significant correlation in the current study does not invalidate the body of evidence supporting such a link but rather suggests the importance of contextual variables in understanding digital media's health impacts. University lecturers, particularly in Nigeria, may exhibit different media consumption patterns or may be less susceptible to the psychological triggers of binge-watching due to professional obligations and cognitive discipline.

Hypothesis two revealed that there was significant influence of late-night social media engagement and insomnia risks among university lecturers in selected tertiary institutions, Lagos State, Nigeria. The t value was significant and a t value (4.321; $P<$

0.05) was recorded. This therefore implies that there was significant relationship between late-night social media engagement and insomnia risks among university lecturers in selected tertiary institutions, Lagos State, Nigeria. This finding aligns with a growing body of empirical evidence associating nocturnal use of social media platforms and increased symptoms of insomnia.

The finding of this study is consistent with Carter *et al.*, (2016) in their study on "Association between portable screen-based media device access or use and sleep outcomes". They observed that excessive use of electronic media, particularly social networking platforms, during late-night hours is significantly associated with poor sleep quality and higher insomnia prevalence. Further, they argued that the interactive and emotionally stimulating nature of social media leads to heightened cognitive arousal, which impedes the onset of sleep. For university lecturers, whose work often involves mental exertion and critical thinking, the additive effect of digital arousal from social media can exacerbate sleep latency and insomnia.

Moreover, this finding is also supported by Scott *et al.*, (2019) in their study that "examined the impact of bedtime social media use on sleep outcomes among adults". Their study found that participants who frequently engaged in social media activities within 30 minutes of going to bed reported more difficulty falling asleep, more frequent awakenings during the night, and overall poorer sleep efficiency. The authors attributed these outcomes to both the psychological stimulation of social interactions and the suppressive effect of blue light emitted by devices on melatonin production which is a hormone critical to sleep regulation.

Additionally, the finding of this study agrees with Alimoradi *et al.*, (2019) in their systematic review and meta-analysed studies concluded that problematic social media use was a strong predictor of poor sleep outcomes, including insomnia. The researchers emphasized that social media content, especially emotionally charged or anxiety-inducing posts, contributes to pre-sleep rumination and heightened alertness, which delay sleep onset. These findings mirror the context of Nigerian university lecturers, many of whom may use social media not only for social interaction but also for professional networking, news updates, and academic discussions and as such can be mentally stimulating and sleep disruptive when engaged in during late-night hours.

The current study's result may also reflect broader socio-cultural and occupational patterns. In Nigeria, where internet penetration and smartphone use have dramatically increased, professionals like university lecturers often rely on platforms such as WhatsApp, Facebook, Twitter (now X), and LinkedIn to stay connected with academic communities, students, and institutional updates often outside official working hours. This continuous connectivity, while beneficial for productivity, can blur the boundaries between work and rest, contributing to sleep disorders such as insomnia.

Ultimately, the significant positive relationship between late-night social media engagement and insomnia among university lecturers suggests that behavioural interventions targeting digital hygiene may be necessary. These may include sleep education programs, time-restricted media usage policies, and the promotion of screen-free routines before bedtime.

Conclusion

Based on the findings of this study, it was concluded that binge-watching streaming content did not have significant influence on insomnia risks among university lecturers in selected tertiary institutions, Lagos State, Nigeria. Late-night social media engagement significantly influenced insomnia risks among university lecturers in selected tertiary institutions, Lagos State, Nigeria. Based on the conclusion of this study, it was recommended that:

- i. Tertiary institutions should develop and promote comprehensive digital wellness and sleep hygiene campaigns targeted at university lecturers. These campaigns should focus on raising awareness of the dangers of late-night social media use, encourage setting digital curfews (e.g., no screen use one hour before bedtime) and recommend practical tools such as screen time monitors, blue light filters, and mindfulness apps that promote better sleep.
- ii. The University authorities should consider establishing sleep-friendly policies and support systems after official working hours.
- iii. Institutions should instead promote individualized media use assessments that help lecturers identify specific digital behaviours that affect their sleep. While social media overuse should be addressed, moderate recreational streaming can be acknowledged as a potential stress-relief activity, especially if consumed.

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