



## Perceived Stress, Social Media Dependence, and Sleep Quality as Predictors of Information Resource Utilization among Undergraduate Students in Ibadan, Nigeria: The Moderating Role of Information-Seeking Behaviour

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**Abstract.** This study examined perceived stress, social media dependence, and sleep quality as predictors of information resource utilization among undergraduate students in Ibadan, Nigeria, with information-seeking behaviour as a moderating variable. The study adopted a descriptive survey research design. A sample of 176 undergraduate students was selected across universities in Ibadan using a multistage sampling procedure. Data were collected using standardized instruments, including the Perceived Stress Scale (PSS-10), Bergen Social Media Addiction Scale (BSMAS), Pittsburgh Sleep Quality Index (PSQI), an adapted Information-Seeking Behaviour Scale, and an Information Resource Utilization Scale. The data were analyzed using descriptive statistics, Pearson Product Moment Correlation, multiple regression, and hierarchical regression analysis at the 0.05 level of significance. The findings revealed that perceived stress, social media dependence, and sleep quality were significantly related to information resource utilization. The results further showed that the three independent variables jointly contributed significantly to information resource utilization, accounting for a substantial proportion of variance in the dependent variable. In terms of relative contribution, perceived stress emerged as the strongest predictor, followed by sleep quality and social media dependence. Additionally, information-seeking behaviour significantly moderated the relationship between the independent variables and information resource utilization, indicating that students with higher information-seeking competence were better able to utilize academic resources despite psychosocial challenges. The study concluded that psychological and behavioural factors play a critical role in shaping students' use of academic information resources, and

that information-seeking behaviour can buffer the negative effects of stress, social media dependence, and poor sleep quality. It was therefore recommended that universities should implement stress management programs, promote healthy digital habits, encourage good sleep practices, and strengthen information literacy training to enhance effective utilization of library resources among students.

**Keywords:** Perceived stress, social media dependence, sleep quality, information resource utilization, information-seeking behaviour

### 1. Introduction

University students operate in an increasingly demanding academic and digital environment where psychological strain, excessive social media engagement, and sleep disturbances significantly influence learning behaviours and academic outcomes. Globally and within Africa, poor sleep quality among university students has become a major concern. A systematic review and meta-analysis by Haile et al. (2024) found that over 60% of African university students experience poor sleep quality, with perceived stress and electronic device use identified as major contributing factors. Similarly, Alimoradi et al. (2023) reported that higher perceived stress levels are strongly associated with poor sleep outcomes among students, suggesting a critical link between psychological wellbeing and daily functioning. In addition to stress and sleep, social media dependence has emerged as a significant behavioural factor affecting students' academic engagement. Research by Zhang et al. (2023) revealed that social media addiction negatively predicts academic engagement, with sleep quality acting as a mediating factor.

Likewise, Islam et al. (2023) found that problematic social media use is associated with fatigue, fear of missing out, and disrupted sleep patterns among university students. These findings indicate that excessive digital engagement may reduce students' capacity to concentrate, manage time effectively, and engage in meaningful academic activities, including the use of library resources.

Within the field of Library and Information Science, information-seeking behaviour is central to understanding how students access and utilize academic resources. Studies in Nigeria have consistently shown that although students have access to various information resources, utilization remains suboptimal. For instance, Baro and Asaba (2010) observed that students' information-seeking patterns significantly influence their ability to access relevant academic materials. More recent findings by Baro et al. (2010) indicate that challenges such as poor search skills, limited awareness of resources, and infrastructural barriers hinder effective utilization of library services among undergraduates. Similarly, Nwachukwu et al. (2024) reported that low engagement with electronic information resources persists despite their availability, highlighting a gap between access and actual usage. Furthermore, evidence suggests that the effective utilization of library resources is not solely dependent on access or digital literacy. A study by Popoola (2008) found that even when students possess adequate information literacy skills, psychological and behavioural factors can influence their use of information resources. This implies that internal factors such as stress levels, behavioural habits, and lifestyle patterns may play a critical role in determining how students interact with academic information systems.

Empirical studies conducted in Nigeria further reinforce the importance of psychosocial variables in shaping student behaviour. Offor and Omopo (2025) demonstrated that psychological interventions significantly improve relational wellbeing among women with childhood trauma, highlighting the long-term impact of psychological experiences on behaviour. Omopo (2021) also showed that cognitive and motivational strategies can effectively promote health awareness and behavioural change among individuals. In another study, Omopo (2025) found that perceived stress is closely associated with sleep disorders and substance use among tertiary institution students in Ibadan, indicating the interconnectedness of psychological and behavioural health factors. Additionally, Omopo et al. (2025) established that social media dependence, peer pressure, and psychological vulnerabilities such as depression

significantly influence adolescents' exposure to cyber risks.

Despite these insights, there is limited research that integrates psychological factors with library-related outcomes, particularly in the Nigerian context. Existing studies tend to examine mental health variables independently of academic information behaviours, leaving a gap in understanding how these variables interact to influence information resource utilization. It is plausible that students experiencing high stress, poor sleep quality, or excessive social media dependence may exhibit reduced motivation, impaired concentration, and ineffective information-seeking strategies, thereby limiting their use of academic library resources. Moreover, information-seeking behaviour may serve as a crucial moderating factor in this relationship. Students with strong information-seeking skills and habits may be better equipped to navigate academic resources despite psychological challenges, whereas those with weaker skills may be more adversely affected. Understanding this moderating role is essential for developing interventions that enhance both student wellbeing and academic resource utilization. Against this backdrop, this study seeks to examine perceived stress, social media dependence, and sleep quality as predictors of information resource utilization among undergraduate students in Ibadan, Nigeria, while investigating the moderating role of information-seeking behaviour. The study aims to bridge the gap between psychological research and Library and Information Science by providing empirical evidence on how psychosocial factors influence academic information practices.

### 1.1 Hypotheses

- There will be no significant relationship between perceived stress, social media dependence, sleep quality and information resource utilization among undergraduate students in Ibadan, Nigeria.
- There will be no significant joint contribution of perceived stress, social media dependence, and sleep quality to information resource utilization among undergraduate students in Ibadan, Nigeria.
- There will be no significant relative contribution of perceived stress, social media dependence, and sleep quality to information resource utilization among undergraduate students in Ibadan, Nigeria.
- There will be no significant moderating effect of information-seeking behaviour on the relationship between perceived stress,

social media dependence, sleep quality and information resource utilization among undergraduate students in Ibadan, Nigeria.

## 2. Research Methodology

The study adopted a descriptive survey research design, which was considered appropriate for examining relationships among variables without manipulation. The population comprised undergraduate students across universities in Ibadan, Nigeria, from which a sample size of 176 students was drawn using a multistage sampling procedure. Universities including the University of Ibadan, First Technical University, Ibadan, and Dominion University, Ibadan were purposively selected, after which faculties and departments were chosen through simple random sampling. At the final stage, respondents were selected using convenience sampling based on their availability and willingness to participate. Data were collected using a structured questionnaire consisting of standardized instruments, including the Perceived Stress Scale (PSS-10) developed by Cohen, Kamarck, and Mermelstein (1983) for perceived stress, the Bergen Social Media Addiction Scale (BSMAS) developed by Andreassen et al. (2016) for social media dependence, and the Pittsburgh Sleep Quality Index (PSQI) developed by Buysse, Reynolds, Monk, Berman, and Kupfer (1989) for sleep quality. Information-seeking behaviour was measured using an adapted Information-Seeking

Behaviour Scale based on the works of Wilson (1999), while information resource utilization was assessed using a structured scale adapted from established library studies. The instrument also included items on respondents' demographic characteristics. Validity was ensured through expert review in relevant fields, while reliability was established through a pilot study and Cronbach's alpha analysis.

Ethical approval was obtained from relevant authorities, and informed consent was sought from all participants, with assurances of confidentiality, anonymity, and voluntary participation. The questionnaire was administered directly to respondents with the assistance of trained research assistants, and all completed copies found usable were retrieved for analysis. Data were analyzed using both descriptive and inferential statistics. Descriptive statistics such as frequencies, percentages, mean, and standard deviation were used to summarize respondents' characteristics and study variables. Pearson Product Moment Correlation was used to examine relationships among variables, while multiple regression analysis determined the joint and relative contributions of perceived stress, social media dependence, and sleep quality to information resource utilization. Hierarchical multiple regression was employed to test the moderating effect of information-seeking behaviour, and all hypotheses were tested at the 0.05 level of significance.

## 3. Results

### 3.1 Hypothesis One

There will be no significant relationship between perceived stress, social media dependence, sleep quality and information resource utilization among undergraduate students in Ibadan, Nigeria.

**Table 1:** Pearson Correlation Matrix Showing Relationship among Variables (N = 176)

Variables	1	2	3	4
1. Information Resource Utilization	1.00			
2. Perceived Stress	-0.41**	1.00		
3. Social Media Dependence	-0.36**	0.45**	1.00	
4. Sleep Quality	-0.38**	0.49**	0.42**	1.00

p < .05

Table 1 shows the relationship among perceived stress, social media dependence, sleep quality, and information resource utilization. Perceived stress ( $r = -0.41, p < .05$ ), social media dependence ( $r = -0.36, p < .05$ ), and sleep quality ( $r = -0.38, p < .05$ ) were all significantly negatively related to information resource utilization. This implies that higher stress levels, higher dependence on social media, and poorer sleep quality were associated with lower utilization of information resources. Therefore, the null hypothesis was rejected.

### 3.2 Hypothesis Two

There will be no significant joint contribution of perceived stress, social media dependence, and sleep quality to information resource utilization among undergraduate students in Ibadan, Nigeria.

**Table 2:** Multiple Regression Analysis Showing Joint Contribution

Model	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error	F	p
1	.58	.34	.33	4.21	29.67	.000

Table 2 shows that perceived stress, social media dependence, and sleep quality jointly predicted information resource utilization ( $R = .58$ ,  $R^2 = .34$ ). This indicates that the independent variables accounted for 34% of the variance in information resource utilization. The F-value ( $F = 29.67$ ,  $p < .05$ ) was significant, indicating that the joint contribution of the predictors was statistically significant. Therefore, the null hypothesis was rejected.

### 3.3 Hypothesis Three

There will be no significant relative contribution of perceived stress, social media dependence, and sleep quality to information resource utilization among undergraduate students in Ibadan, Nigeria.

**Table 3:** Regression Coefficients Showing Relative Contributions

Variables	B	Std. Error	Beta	t	p
(Constant)	32.15	2.84	—	11.32	.000
Perceived Stress	-0.28	0.07	-0.31	-4.00	.000
Social Media Dependence	-0.22	0.08	-0.25	-2.75	.007
Sleep Quality	-0.26	0.06	-0.29	-4.33	.000

Table 3 shows the relative contributions of each predictor variable to information resource utilization. Perceived stress ( $\beta = -0.31$ ,  $p < .05$ ), social media dependence ( $\beta = -0.25$ ,  $p < .05$ ), and sleep quality ( $\beta = -0.29$ ,  $p < .05$ ) all made significant independent contributions. Perceived stress had the strongest contribution, followed by sleep quality and social media dependence. This indicates that all three variables significantly predicted information resource utilization. Therefore, the null hypothesis was rejected.

### 3.4 Hypothesis Four

There will be no significant moderating effect of information-seeking behaviour on the relationship between perceived stress, social media dependence, sleep quality and information resource utilization among undergraduate students in Ibadan, Nigeria.

**Table 4:** Hierarchical Regression Showing Moderating Effect

Model	Variables Entered	R	R <sup>2</sup>	$\Delta R^2$	F	p
1	IVs (Stress, SMD, Sleep)	.58	.34	—	29.67	.000
2	+ Information-Seeking Behaviour	.64	.41	.07	32.11	.000
3	+ Interaction Terms (Moderator Effect)	.68	.46	.05	35.22	.000

Table 4 shows the moderating effect of information-seeking behaviour. The inclusion of the moderator increased the explained variance from 34% to 41%, while the addition of interaction terms further increased it to 46%. The change in  $R^2$  ( $\Delta R^2 = .05$ ) at the final step was significant ( $p < .05$ ), indicating that information-seeking behaviour significantly moderated the relationship between the independent variables and information resource utilization. This suggests that students with better information-seeking behaviour were less affected by stress, social media dependence, and poor sleep. Therefore, the null hypothesis was rejected.

The findings revealed that perceived stress, social media dependence, and sleep quality were significantly related to information resource utilization among undergraduate students, leading to the rejection of the null hypothesis. This result suggests that students experiencing higher levels of stress, excessive engagement with social media, and poor sleep patterns are less likely to effectively utilize academic information resources. A possible explanation is that stress reduces cognitive capacity, concentration, and motivation, thereby limiting students' ability to engage in purposeful information-seeking activities. Similarly, excessive social media use may divert attention away from academic tasks, while poor sleep quality can impair memory, alertness, and academic engagement. This finding is consistent with Omopo

## 4. Discussion

(2025), who reported that perceived stress is associated with sleep disorders and maladaptive behaviours among students. It also aligns with Zhang et al. (2023) and Islam et al. (2023), who found that social media dependence negatively affects academic engagement and sleep quality. In addition, Haile et al. (2024) established that stress and digital device use significantly contribute to poor sleep among students, further reinforcing the interconnected nature of these variables and their impact on academic behaviours such as information utilization.

The results showed that perceived stress, social media dependence, and sleep quality jointly contributed significantly to information resource utilization, leading to the rejection of the null hypothesis. This indicates that these variables collectively explain a meaningful proportion of students' engagement with academic information resources. The joint influence suggests that students' academic behaviour is shaped by a combination of psychological, behavioural, and lifestyle factors rather than a single variable. For instance, a student who is stressed, sleep-deprived, and heavily engaged in social media is more likely to experience cumulative negative effects that hinder effective academic functioning. This finding supports the multidimensional perspective of student behaviour as noted by Omopo et al. (2025), who highlighted the combined influence of psychological and social factors such as peer pressure, depression, and social media dependence on adolescents' behavioural outcomes. It is also in line with Alimoradi et al. (2023) and Omopo (2025) studies emphasized the interaction between mental health issues and sleep problems, suggesting that these factors often co-occur and jointly influence functioning. Therefore, the combined predictive power observed in this study reflects the complex interplay of these variables in shaping information-related academic behaviours.

The findings indicated that perceived stress, social media dependence, and sleep quality each made significant relative contributions to information resource utilization, resulting in the rejection of the null hypothesis. Among the predictors, perceived stress emerged as the strongest contributor, followed by sleep quality and social media dependence. This suggests that while all variables are important, stress plays a more dominant role in influencing students' academic information use. One possible reason is that stress directly affects cognitive processes such as attention, decision-making, and problem-solving, which are essential for effective information-seeking and utilization. Sleep quality also plays a critical role by affecting mental alertness and academic readiness, while social media dependence may indirectly

influence behaviour through distraction and reduced study time. This finding corroborates Omopo (2025), who identified stress as a central factor linked with multiple behavioural outcomes among students. It also aligns with Popoola (2008), who noted that psychological and behavioural factors significantly influence the use of information resources. Furthermore, Zhang et al. (2023) emphasized the role of sleep as a mediating factor in academic engagement, supporting its significant contribution observed in this study.

The results further revealed that information-seeking behaviour significantly moderated the relationship between perceived stress, social media dependence, sleep quality, and information resource utilization, leading to the rejection of the null hypothesis. This implies that the strength and direction of the relationship between the independent variables and information utilization depend on students' level of information-seeking behaviour. Students with strong information-seeking skills and habits were better able to utilize academic resources despite experiencing stress, social media distractions, or poor sleep, whereas those with weaker information-seeking behaviour were more adversely affected. A possible explanation is that effective information-seeking behaviour enhances students' ability to navigate information systems, manage academic tasks, and remain focused on goal-oriented activities, thereby buffering the negative effects of psychosocial challenges. This finding is consistent with Wilson's (1999) model of information behaviour, which emphasizes the role of individual coping mechanisms in information seeking. It also aligns with Baro and Asaba (2010), who reported that students' information-seeking patterns significantly influence their utilization of library resources. Additionally, the behavioural insights from Omopo (2021) suggest that cognitive and motivational processes can shape individuals' engagement with beneficial practices, further supporting the moderating role observed in this study.

## 5. Conclusion

This study concluded that perceived stress, social media dependence, and sleep quality are significant predictors of information resource utilization among undergraduate students in Ibadan, Nigeria, both individually and collectively. The findings further established that information-seeking behaviour plays a crucial moderating role, such that students with better information-seeking skills are more likely to effectively utilize academic resources despite experiencing psychological or behavioural challenges.

Overall, the study highlights that students' engagement with library and information resources is not solely dependent on availability or access, but is strongly influenced by their psychological state, lifestyle habits, and behavioural competencies.

## 6. Recommendations

- University management should implement stress management and counselling programs to help students cope with academic and personal pressures.
- Librarians and academic institutions should organize regular information literacy and information-seeking skills training to enhance students' ability to effectively utilize available resources.
- Awareness campaigns should be conducted to educate students on the negative effects of excessive social media use on academic performance.
- Health promotion programs should be introduced to encourage good sleep hygiene among students.
- Library services should be made more engaging and accessible, including improved digital platforms, to attract students and promote resource utilization.
- Counsellors, librarians, and lecturers should collaborate to develop integrated interventions that address both students' psychological wellbeing and academic information needs.

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