Technology in Action: Understanding the Effects of Night Screen Time on The Well-Being of Academic Staff in Nigeria

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Abstract

The academic staff's well-being is very paramount and of utmost importance, as it is the gateway to increased creativity, performance, and commitment to the university's development agenda. In this globalizing world, technology has been on the rise and pervades all aspects of human endeavors. Premised on the continuous emergence of sophisticated technology, human life has continued to depend on, -and the level of humans' exposure to these technologies (i.e., screens) for achieving development strides is growing at an astronomical rate. Despite the fact that the advent of science and technology and its innovativeness has birthed an avenue for instantaneous communication with others and increased the ability to perform well on the job, the effects of screen time most especially at night on the well-being of academics staff still represent a subtle challenge that continues unguarded. Based on the foregoing, this study investigated the effects of night screen time on the well-being of academic staff with empirical evidence from Nigeria. Using the descriptive survey research design, two hypotheses were stated and tested using the linear regression of SPSS version 26. Results of the analyses brought to the fore that, excessive smartphone usage has a significant effect on the sleep quality of academic staff and computer usage has a significant effect on anxiety disorder of academic staff in Nigeria. Based on these results, the study concluded that the establishment of a work-life integration culture that assists academic staff to care for their health is important for achieving their triad goals (research, teaching and community service). As a result, it recommends amongst others that the university management should develop quarterly health maintenance visitation plans for academic staff to cater for their overall well-being. Also, academic staff must adopt a low night screen usage time philosophy to cater for their health and overall well-being.

Keywords: Academic Staff, Night Screen Time, Nigeria, Technology, Well-Being

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1. Introduction

Employees' well-being is very paramount and of utmost importance, as it is the gateway for increased performance and commitment in any organization. In this same manner, technology has been on the rise and pervades all aspects of human endeavors. Based on the emergence of technology, human life and the level of exposure to screens have grown at an astronomical rate. Khalili-Mahani, Smyrnova and Kakinami (2019) opined that in a family, an adult interacts with the media for about eleven (11) hours daily while teens interact for an average degree of nine (9) hours; which excludes time spent on homework or books. The increased access to the internet has also contributed largely to the rise in steady engagement in activities hinged on (night) screen time whether through digital devices (smartphones, televisions and so on) as a means of consolation to get rid of boredom or to continue from where they stopped at the workplace thereby neglecting these attendant consequences on their wellbeing which in many instances leads to poor sleep and anxiety disorder to the involved persons. Even though the advent of technological innovativeness has birthed an avenue for instantaneous communication with others and increased our ability for maintaining and creating social connections, excessive (night) screen time usage among academics still represents a subtle challenge which continues unguarded. The ever-presence of electronic gadgets and media around human endeavors for the past six decades has brought about an increased focus on studies evaluating the effects of screen time across several generations in this modern age (Twenge, Cooper, Joiner, Duffy & Binau, 2019). A study by Twenge and Campbell (2018) investigated the trends among cohorts towards the control of period based on age and time and observed that the (IGen), those whose birth years fall within the 1990s and the millennials who were born around the 1980s had a significant increase in terms of severe rate of psychological trauma, thoughts and distress as against their counterparts whose birth years fall between the 1970s which is referred to as the (GenX) and those of early years (Baby Boomers).

Employees' well-being comprises components such as optimism, reduced stress, happiness and so on, which are work-related and applies to the activities of an organization and the style of practice inherent in such a work environment. Employees' welfare can also suffice through personal relationship which emanates from the workplace (Yen, Yen, Chen, Tang & Ko, 2009). In modern workplaces, mental health and performances are to a large extent based on the degree of employee well-being. Therefore, the success of employees in their respective jobs reflects the level of well-being present in their cycle of activities. Thus, academics' well-being based on the usage of night screen time can be illustrated from the purview of their experience and the amount of organizational social support available to them (Caudill & Woodzicka, 2017). Eventually, the nature of tasks especially for academics which inspires them to regularly engage in night screen time is dependent on the nature of their work and the culture of the workplace (Holmes & Marra, 2002). In modern work organizations, where organizational success is hugely dependent on workers' well-being and workers' productivity which translates to organizational profitability; many workers now view night screen time as a practice that in the long run affects their wellbeing.

Academics' well-being is very pertinent and crucial because their health and wellness (i.e., mood, physical health, mental health and cognitive functioning of the system) are central to the achievement of research, teaching and community service. In the Nigerian context, many academics do not have the required level of well-being based on the stress encountered in their job. Based on this submission, it can be stated that many events account for the continuous usage of night screen time by academic staff, some of which are social factors, physical factors, as well as emotional and genetic factors. Workers' well-being is very important and it must be noted that care must be taken from whatever activities that may pose stress or challenge to its continuous functionality. According to Medic, Wille and Hemels (2017), constant night screen time can inhibit functional well-being and in the same vein, lack of daytime light can negatively affect the circadian rhythm.

In furtherance of the above statements, Christensen et al. (2016) argued that night screen time activities through excessive usage of smartphones and computer usage at night for productivity sake can do more harm than good and can result in sleep disturbance symptoms such as insomnia or poor sleeping habit. Also, these scholars submitted that excessive usage of these gadgets at night might increase anxiety and later metamorphose into an anxiety disorder. All of these are detrimental to human wellness and well-being. Previous studies on screen time have focused exclusively on the quantification of screen use basing their opinions and interests on the number of hours of television viewing over a certain week (Wilmot et al., 2012) and only a few studies have conglomerated television and videos or games (Wijndaele, et al., 2011). None of these studies has been able to look at how night screen time indicators (i.e., excessive smartphone and computer usage) would affect the indicators of wellbeing (i.e., sleep quality and anxiety disorder). Based on these foregoing arguments, this study examined the effect of night screen time on the well-being of academic staff in Nigeria.

2.   Literature Review

2.1.   *Conceptual Review*

Night screen time can be described as the amount of time devoted to operating devices such as smartphones, computers, and televisions at night for the sake of remaining active (Hale & Guan, 2015). Many studies in this regard have investigated different types of screens immersed by individuals at different points but these studies examined a single type of electronic screen at their different study durations. But this current study combined smartphones and television and examined their effects and relationship on sleep quality and anxiety disorder. The justification for examining these electronic screens in this study is premised on the fact that these are the screens that academics immersed themselves with 'to relax' after the day's assiduous work. In the same vein, most studies centered on this topic have mainly focused on psychopathological symptoms like anxiety, depression and psychological distress (Mathers et al., 2019) whereas well-being in the aspect of sleep quality and anxiety disorder is not often researched. Many studies on screen time and well-being only examine issues from the psychological viewpoint in areas such as screen use and wellness without interrogating how screen usage at night affects the well-being of academic staff in a developing

economy like Nigeria. According to Kim and Park (2017), smartphones represent mobile phones which perform many diverse functions. It denotes personal devices which are owned by individuals. Smartphones as personal items have gained wide acceptance and they can be categorized under diverse brands and generations. It is a physical, adaptable, all-around and multipurpose device with internal or central convolution with processors, GPS, cameras, sensors, microphone, display and speaker (Brynjolfsson & McAfee, 2019). Smartphones are treated by their users as solid components with a huge display window for which individuals are granted access to global events. In selecting smartphones, people usually prefer a smart device which is handy enough to fit into their pockets to make use of it any anytime there is a need for such which is due to its core offering in terms of the technology inherent in it and the variety of functions it performs (Christensen et al., 2016). Therefore, these functionalities could make it be used excessively.

Computer usage represents activities which are interactive and presents a broad range of special challenges, especially for adults that have increased in age. This manifests through increased problems and difficulty in the psychomotor ability nature of the mouse, to the cognitive and sensory abilities like the speed employed in searching for icons, to activities inherent with the learning, memories, and executive function, all of this can be understood with age (Charness & Boot, 2009). Studies have presented that the usage of computer cuts across all ages and it is embraced by all due to its high technical ability and capability in delivery and because the world relies on information which is obtained via the internet whether for email communication or information bordering on welfare or healthcare (Kane, Boston & Chivers, 2007). Also, the dramatic increase in the usage of computers is deployed in sourcing for information in the aspect of sourcing and searching for products, travel agencies, online banking and online shopping (Fox, 2001).

On the flip, considerable attention has been received on well-being in recent years and this stems from its important role in the workers' journey towards productivity. So, well-being has been cited and described as a top priority to management, government and actors in all spheres of human endeavor (Beddington et al., 2018). However, from the point of analysis of an individual's profession, well-being can be conceptualized to present different connotations; for example, for an economist, the importance ascribed to wellness will be adjudged from the position of the capacity and prosperity of an economy as well the nature of growth in individuals and national economic wealth. From scholars in the field of population health, describing well-being can be captured as the promotion of health and eradication of diseases. Advocates of social policy can define well-being as the provision of healthcare, provision of access to the issues of equality and justice. For scholars in the behavioral science field, well-being can be viewed by these researchers as an individual's degree of experience which reflects their personal phenomenological and experiential sense of happiness hinged on their engagement with the community, work and families (Burns, Byles, Magliano, Mitchell & Anstey, 2015).

In this study, sleep and anxiety disorder were used as proxies of employee wellbeing (Roeser, Eichholz, Schwerdtle, Schlarb & Kübler, 2012). The role of sleep is very crucial in the everyday functions of all human endeavors ranging from their overall health structure and well-being. Sleep is a pertinent and essential tool for evaluating performance and productivity; therefore, it helps fight any form of illness as well as the maintenance of stable overall life quality (National Heart, Lung, & Blood Institute, 2017). Challenges connected with inadequate sleep are quite numerous and also problematic to the health of men (Hysing et al., 2015). Failure to sleep adequately can result in inability of the human body to proactively fight against diseases and infections; thus, the body framework becomes impaired which leads to the development of illness (University of Georgia, 2016).

From the opinion and submission of Besedovsky, Lange, and Born (2012), sleeping adequately assists and supports immune function. They stressed further that sleep and the circadian system remain strong regulators and bedrock of the immunological process. When there is adequate sleep, it breeds a complex physiological event which is found to be occurring within the body and remains a valid formation supporting the cell memory to last long (Besedovsky et al., 2012). In the same manner, when a seamless memory is formed within the human body via the immune cells, the propensity to get sick by individuals significantly becomes less compared to individuals who do not sleep adequately (Peluchette & Karl, 2018). Explanation obtained from the study carried out by Rico-Rosillo and Vega-Robledo (2018) brought to the fore that cell memory is processed by the description of how an individual's immune system releases a protein that is known as cytokines where there is adequate sleep. This submission of the scholar is that the importance of sleep cannot be overemphasized. Also, anxiety implies the holistic response of individual persons to dangers and other forms of threat (Caudill & Woodzicka, 2017). Thus, it engenders an experience associated with thoughts about a process of physiologically activating alarm concerning harm or danger (Christensen, et al., 2016). Anxiety disorder can be described as a condition that is related to mental health; persons with anxiety disorder are considered to respond to certain situations which can manifest in terms of sweating and pounding of the heart (Medic, Wille & Hemels, 2017). Symptoms present in individuals under this category often experience psychological imbalances which may cause them to overreact or act in certain abysmal ways, therefore bringing about strain in their cognitive behaviors (Perry, 2015).

2.2.   *Theoretical Framework*

The theories guiding this study are the media system dependency theory which was credited to Ball-Rokeach and DeFleur (1976) and further remodeled by DeFleur and Ball-Rokeach, (1989) and the social learning theory by Bandura (1989). These theories were employed because they both give a comprehensive analysis of technology and the variation in human behavior due to the deliverables and offerings of technology in shaping and remolding the perception and nature of man's activities. These theories were used complementarily and the justification for using them complementarily is hinged on the fact that the theories enhance the propositions of each other. In this study, media

dependency explains the connectivity between media technology and its audience. While the social learning theory buttresses this explanation that academics' healthiness and well-being are dependent on a number of influencing factors such as night screen time.

Media System Dependency Theory

This theory is well-established in the field of communication sciences; the theory was previously developed by Ball-Rokeach and DeFleur (1976). The principle of this theory is centered on the systematic framework for analyzing the significant effect of the media on individuals and investigates the connectivity between the media and social system as it affects its audience. The principal and focal point of this theory is hinged on the association between the media, technology and the audience. Based on the current realities of Nigerian society, individuals build up a strong reliance on the media as a way of fulfilling their necessities. One of the significant propositions of this theory is that the more functions the media serves the more the rate of dependency on its deliverables, and so does the rate of dependence keep skyrocketing. The media gains more and stronger prominence with the growth of dependency which has long-lasting affective and behavioral and cognitive effects on individuals (DeFleur & Ball-Rokeach, 1989). Using this theory for the current study helps in the understanding that investigating night screen time via excessive smartphone usage and strong reliance on computer gadgets with the advent of technology significantly affects the cognitive outcome in terms of workers' well-being.

Social Learning Theory

This theory was developed by Bandura (1989) and its principle is premised on the provision of the framework which allows for the understanding and predicting of the changing nature of individual behavior. One of the crucial submissions of this theory is that the sources for learning from individuals are observation, modelling and imitation (Bandura, 1989). The scholar explained further that an individual's choice of health is influenced by combined factors such as environmental factors, behavioral factors and personal factors, and the influence of these factors is ever evident in the life of an individual, and these factors as well influence one another in the life of every person (Bandura, 1989). For instance, for individuals with a strong conviction and belief that staying connected via electronic devices, all night is of great benefit to their social lives and movements; then the reduction in screen time by these folks will be highly impossible this is because their opinion is centered on the notion that staying socially connected is far more profitable and valuable than sleeping.

3.   Hypothesis Development

3.1.   *Excessive Smartphones and Quality of Sleep among Academics in Nigeria*

Employees cannot live without their smartphones because they perform varieties of functions and it is also used for leisure in terms of reducing stress and boredom. To many workers, their smartphones serve as their true and only companions, especially when on night shifts. According to

Choi, Lee and Ha (2012) smartphones facilitates a better life but not without attendant consequences in the area of physical and mental challenges. Thus, the more time spent by workers engaging with their smartphones, the more impact it might have on their well-being Again, Lee, Chang, Lin and Cheng (2018) posited that workers can get more addicted to their screens based on the amount of time and frequency of usage; all of which significantly have an impact on their lives. Studies of recent times have posited that addiction to night screen time via excessive smartphone has a huge implication on well-being and one of the most prominent consequences is sleep disturbance and depression; this is because smartphones are kept within reach at every point in time thus, leading to sleep interference (Perlow, 2012). Thomée, Härenstam and Hagberg, (2013) examined night screen time among Canadian adults in Vancouver; three among ten respondents surveyed submitted that they spent more hours on night screen and are only able to sleep for a few hours which sure has a repercussion on their work delivery. The findings also revealed that over 79% of the Canadian adults employed in the study were classified as frequently interacting and engaging in night screen time. Lawson and Lee (2016) investigated the excessive screen time behaviors of youthful smartphone users in the different metropolis in the United States. Findings from this study reflected that the majority of youths engrossed with their smartphones were found to be addicted to one game or the other. This study also found out that the engagement by these youth goes on for many hours thereby causing poor sleeping quality whose outcome impeded their degree of assimilation. A quantitative study by Killgore et al. (2018) investigated the effect of an increase in on-screen time on the health of Britain workers. The result from the study indicated that more time spent by workers watching video games created a greater amount of anxiety disorder. The outcome from this study also presented that increased engagement with screen time is strongly associated and related to negative cognitive outcomes which impede the totality of functional well-being of individual workers. Another study by Pilcher and Morris (2020) examined the association between screen time in the aspect of excessive smartphone usage and anxiety disorder. Findings from the study indicated that screen time via excessive smartphone was associated with depression both at moderate and severe levels. Excessive engagement with the smartphone also poses danger and a huge risk of mental illness and diverse kinds of disorders. Additionally, Nauman, Malik and Jalil, (2019) assessed the connection and relationship between digital screen time and pediatric sleep among nurses of Dagenham Essex province hospital. Findings from their study showed that the more concentration and rapt attention devoted to screen time via excessive smartphone engagement, there is a significant connection between less sleep quality and lower levels of sleep consistency became an outcome. These findings exposed the researchers to the understanding that digital screen time via excessive smartphone usage has harsh consequences on sleep quality. Another significant landmark from this study was that the finding revealed that circumstantial or contingent factors surrounding screen time via excessive smartphone usage have a greater influence on sleeping quality unlike the screen time itself. Based on the foregoing arguments, this study hypothesized that:

H1:   Excessive smartphone usage has a significant effect on the quality of sleep among academic staff in Nigeria

2.1.   *Computer Usage and Anxiety Disorder among Academics in Nigeria*

In recent times, researchers have submitted that constant usage of computer-aided devices such as video games, Ipads and so on can be directly associated and linked with components connected with anxiety disorder whose outcome always affects the quality of delivery of individuals (Hale & Guan, 2015). Kenney and Gortmaker (2021) also contributed that the continuous usage of tablets and smart mobile devices also adversely has a close link with anxiety disorder. Scholars such as Fobian, Avis and Schwebel (2016) adduced that using the computer throughout the night causes poor sleeping hygiene among individuals leading to anxiety disorder which in many instances precipitates poor health-related challenges such as quality of life. Studies by Hutter et al., (2010) and Lajunen et al., (2007) presented that the night screen through the usage of a computer and other related devices at night, may reduce an individual's physical wellbeing and promotes anxiety disorders. For instance, in a study by Hasan (2003) which sampled respondents' opinions in the area of computer usage and how it creates anxiety disorder among selected employees in the telecommunications industry in Pakistan, regression analysis was employed as the statistical tool for testing the study hypothesis and result provided that employees who constantly interact with the computer system excessively have a high tendency towards experiencing an anxiety disorder. Beckers and Schmidt (2018) examined midnight usage of computer experience and its connection with anxiety disorder using middle-level employees of selected distilling organizations in Sweden, the correlation analysis was employed in the study to test the stated hypothesis and findings reflected that computer usage experiences a negative relationship with an individual employee anxiety disorder. Also, a study by Rosen and Weil (2015) investigated the night availability and usage of computers concerning its linkage with cognitive behavioral disorder among selected secretariat staff in the Kenyan public service. Findings obtained from the study showed that employees with less computer usage were found to have less anxiety disorder and vice versa. Another study by Broos (2005) whose study examined night computer usage and perceived computer experience anxiety; using selected college students in California as a basis of analysis and regression as an analytical technique, findings revealed that perceived computer usage has a positive impact on increasing computer anxiety. In the same vein, a study by Winer and Bellando (1989) developed a three-factor model of computer usability and its effect on psychoanalytic disorder among steel employees in selected provinces of Czechoslovakia. Findings reported that each of the selected provinces had an eccentric and erratic culture-dependent model of computer usage and each of these models presents different anxiety disorder types such as generalized anxiety disorder (GAD), obsessive-compulsive disorder (OCD), social phobia also known as social anxiety disorder on the employees in the selected areas. Based on these submissions above, this study hypothesized that:

H2:   Computer usage has a significant effect on the anxiety disorder of academic staff in Nigeria.

3.   Research Methodology

In this study, the descriptive survey research design was adopted to examine the interplay between night screen time and the well-being of academics in Nigerian Universities. For this study, electronic copies of the questionnaires were distributed to academics working in public and private universities in the Nigerian 6 geopolitical zones (South West, South East, South-South, North West, North East, and North Central). According to the Nigerian Universities Commission (NUC), there are about 100,000 academic staff in Nigeria (Tolu-Kolawole, 2022). Thus, the population of this study is 100,000. From this identified population, a sample size of three hundred and eighty-four (384) which was determined through the Krejcie and Morgan, (1970) sample size determination table. To compensate for the non-response rate based on the recommendation of Israel (1992), 30% of the sample size was added to the initially determined sample size which brings the total of respondents to 500. Using the convenience sampling technique, 500 electronic copies of the questionnaires were sent out for 3 weeks of survey administration and follow-up and at the end, 454 were returned and found fit for analysis which yielded a 90.8% response rate. The scales used in the questionnaire were adapted from existing studies. For measuring excessive smartphone usage, a sub-scale (i.e., smartphone dependence sub-scale) of the problematic mobile phone use questionnaire short version developed by Lopez-Fernandez et al. (2018), using the 5-point Likert's type rating scale; ranging from strongly disagree (1), disagree (2), undecided (3), agree (4) and strongly agree (5) was used. The scale has been reported to have an acceptable reliability coefficient. In this study, Cronbach's alpha was $\alpha=0.882$ which is above the yardstick and an AVE of 0.62. To measure the quality of sleep, a scale developed by Yi, Shin and Shin (2006) was used to measure the variable using the 5-point Likert's type rating scale; ranging from strongly disagree (1), disagree (2), undecided (3), agree (4) and strongly agree (5). The scale has been stated to have a satisfactory reliability coefficient. Cronbach's alpha was $\alpha=0.816$ with an AVE of 0.57 in this study. To measure computer usage, the computer attitude scale by Nickell and Pinto (1986) was adapted and anxiety disorder was measured using the anxiety disorder scale developed by Spitzer, Kroenke, Williams, and Löwe (2006) was used. The scales were measured using the 5-point Likert's type rating scale; ranging from strongly disagree (1), disagree (2), undecided (3), agree (4) and strongly agree (5). Also, the scales possess an adequate reliability coefficient. Cronbach's alpha was $\alpha=0.801$ (AVE = 0.52) and $\alpha=0.758$ (AVE = 0.63) respectively in this study. After the data has been collected and collated, the linear regression statistical technique was utilised to analyse the specified hypotheses using the Statistical Package for Social Sciences (SPSS) version 26.

4.   Results and Discussion of Findings

This section discusses the effects of the variables exists amongst variables in this current study. It also presents the results of analyzed demographic data and tests of hypotheses.

Table 1. Descriptive Data from Respondents

Variable	Classification	Count	Percentage (%)
Sex	Female	32	7%
	Male	422	93%
University Ownership	Public	294	64.8%
	Private	160	35.2%
Designation	Professorial	27	22.5%
	Senior Lecturer	69	15.2%
	Others	283	62.3%
Duration of daily digital screen (phone and computers) usage	5-10 hours	292	64.3%
	10-15 hours	129	28.4%
	16-20 hours	33	7.3%
Reasons for night screen usage	• Information search for academic purposes	169	37.2%
	• Information search for personal purposes	85	18.7%
	• Checking social media accounts	153	33.7%
	• Listening to Music	26	5.7%
	• Watching Movies	21	4.6%

From Table 1, the preliminary data shows that 93% of the respondents were males and 7% were females. The reason for the higher percentage is that academia in Nigeria is mostly seen as a men's profession while the nursing profession is seen as a women's profession. Equally, the majority of the respondents (64.8%) teach in public universities in Nigeria, while 62.3% of the respondents who were classified as others are Lecturer I and below. Furthermore, 64.3% of the respondents use digital screens for a duration of between 5-10 hours daily, 28.4% use it for between 10 and 15 hours daily and 7.3% use it for a period that ranges between 16 and 20 hours. Equally, most of the academics (37.2%) use the screen at night to search for academic purposes, 18.7% use it to search for information for personal purposes, 33.7% use it to check social media accounts, 5.7% use it to listen to music and 4.6% use it to watch movies at night.

Hypotheses Testing

H1:   Excessive smartphone usage has a significant effect on the quality of sleep among academic staff in Nigeria

Table 2. Model Summary of Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.609[a]	.772	.771	.53642	5.334

a. Predictors: (Constant), Excessive_Smartphone_Usage

b. Dependent Variable: Quality_of_Sleep

Table 3. ANOVA of Regression

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.227	1	7.263	6.322	.000[b]
	Residual	18.319	287	.318		
	Total	20.546	288			

a. Predictors: (Constant), Excessive_Smartphone_Usage

b. Dependent Variable: Quality_of_Sleep

Table 4. Coefficients of Regression

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.543	.492		4.052	.000
	Quality_of_Sleep	.623	.108	.754	2.162	.000

a. Dependent Variable: Quality_of_Sleep

Hypothesis one examined the significant effect of excessive smartphone usage on the quality of sleep of academics in Nigeria. For interpretation of the formulated hypothesis, the t-statistics values which determine the calculated differences represented in units of standard error, the R-square values that focus on the determination of the level of variance of the dependent variable that can be described

by the independent variable as well as the p-values that focused on calculated probability were used. Therefore, Table 2, 3, and 4 shows the linear regression statistical outcomes of hypothesis one, and finding showed that excessive smartphone usage has a significant effect on the quality of sleep of academics ($\beta = 0.754$, $R^2 = 0.772$, $p<0.05$). The R^2 value of 0.772 shows that the 77.2% variance in quality of sleep can be explained by the excessive usage of smartphones at night by the academics working in Nigeria. Therefore, the stated alternative hypothesis is accepted. This result is supported by the studies of Nauman, Malik and Jalil, (2019) who found a relationship between digital screen time and pediatric sleep among nurses of Dagenham Essex province hospital. These authors noted that more concentration and rapt attention devoted to screen time via excessive smartphone engagement brings about less quality sleep and indeed, has harsh consequences on sleep quality. Similarly, the outcome of this study aligns with the proposition of the media dependency theory which submitted that the more functions the media or technology usage serve the more the rate of dependency on its deliverables, and so does the rate of dependence keep skyrocketing. Therefore, a strong reliance on computer gadgets most especially at night would not only impact the well-being of the academics but would go on to significantly affect their cognitive well-being.

H2:   Computer usage has a significant effect on anxiety disorder of academic staff in Nigeria.

Table 5. Model Summary of Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.569[a]	.453	.452	.53216	3.534

a. Predictors: (Constant), Computer_Usage

b. Dependent Variable: Anxiety_Disorder

Table 6. ANOVA of Regression

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	5.213	1	8.354	54.433	.000[b]
1	Residual	14.523	287	.342		
	Total	25.131	288			

a. Predictors: (Constant), Computer_Usage

b. Dependent Variable: Anxiety_Disorder

Table 7. Coefficients of Regression

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.132	.712		4.156	.000
	Anxiety_Disorder	.443	.291	.573	2.314	.000

a. Dependent Variable: Anxiety_Disorder

Hypothesis two tested the significant effect of computer usage on anxiety disorder. Table 5, 6, and 7 explains the linear regression statistical results of hypothesis two, which is hinged on the effect of computer usage on anxiety disorder of academics working in Nigeria. The finding brought to the fore that (excessive) computer usage has a significant effect on anxiety disorder ($\beta = 0.573$, $R^2 = 0.453$, $p<0.05$). The R^2 value of 0.453 suggests that a 45.3% variance in anxiety disorder can be explained by computer usage. The null hypothesis was rejected. Thus, computer usage has a significant effect on the anxiety disorder of academic staff working in Nigeria. This result is supported by the findings of Beckers and Schmidt (2018) whose study found that midnight usage of computers has a connection with anxiety disorder amongst middle-level employees of selected distilling organizations in Sweden. Further, the study aligns with that of Rosen and Weil (2015) whose study submitted that employees with less computer usage were found to have less anxiety disorder and vice versa. Furthermore, as noted by Winer and Bellando (1989) in their three-factor model of computer usability and its effect on psychoanalytic disorder among steel employees in selected provinces of Czechoslovakia, submitted that computer usage and each of these models present different anxiety disorder types such as generalized anxiety disorder (GAD), obsessive-compulsive disorder (OCD), social phobia also known as social anxiety disorder on the employees in the selected areas.

5.   Conclusions and Recommendations

The current study contributes to the existing literature on the link between night screen time and the well-being of academics in a developing economy like Nigeria. As suggested by Trott, Driscoll, Irlado and Pardhan (2022), this study used validated measures, controlled for the demographic variables and establishes that there is a significant effect of night screen time through its components (excessive smartphone usage and computer usage) on well-being (quality sleep and anxiety disorder). While academics need to limit their night screen time due to its negative effects on their overall well-being in the long run, the onus lies on the university leaders to work tirelessly to create a wellness climate in their universities to help academics gain the needed stability and tenacity required to achieve the universities' goals and aspirations. As a result, this study concludes that the establishment of a work-life integration culture that assists academic staff to care for their health is important for achieving their triad goals (research, teaching and community service). Also, this study contributed

significantly to the academic literature on organizational behaviour by noting the complementariness of the media system dependency and the social learning theories in the quest of understanding the interrelationship between night screen time and the well-being of academics in Nigeria.

Based on the findings reported in this study, it recommends that the university management should develop quarterly health maintenance visitation plans for academic staff to cater for their overall well-being. Also, academic staff must adopt a low night screen usage time philosophy to cater for their health and overall well-being. The university management should establish suggestion systems and mechanisms that provide continuous orientation to academic staff on their overall well-being to strengthen their psychological capabilities.

As a suggestion for further study, since this study is quantitative in nature, one of the remarkable gaps left unexamined by this research is what future research could expand upon in two ways. First, qualitative data collection through an in-depth interview or the focus group discussion could provide more facts about academics' overall well-being, psychological capital and how they serve as corollaries of technological advancements and developments. Second, onsite/record observations would reveal and give a firsthand understanding of the academic well-being and technology usage policies created by the universities to understand the interrelatedness of the variables of the study.

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