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RELATIONSHIP BETWEEN PROBLEMATIC MOBILE PHONE USE AND SCHOOL WORK PARTICIPATION AMONG SECONDARY SCHOOL STUDENTS IN ENUGU STATE, NIGERIA

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ABSTRACT

Schoolwork participation is an essential component of the educational ecosystem of every society. However, engaging in schoolwork in many cultures has been fraught with many challenges, including the ever-increasing innovations in smartphone technology. The present study examined problematic mobile phone use as a variable that could account for the variations in schoolwork participation among secondary school students. Two hundred and fifty-two senior secondary school students from five public and private schools in Enugu state participated in the survey. They completed a self-report measure of the Schoolwork Engagement Inventory and Smartphone Addiction Scale-Short Version (SAS-SV). The simple regression analysis conducted on the data revealed problematic mobile phone use as a positive predictor of schoolwork participation. Most importantly, the result showed that problematic mobile phone use explained 21.1% of the variance in schoolwork engagement. The practical implications and recommendations are discussed.

KEYWORDS: *Problematic mobile phone use, schoolwork, students, secondary school*

INTRODUCTION

There is growing insinuation suggesting that most students in all levels of education in Nigeria no longer fully participate in school-related activities as they ought to. It is reported that most students, especially in the tertiary institutions, now spend excessive time engaging in all sorts of Internet activities, such as online communication and social media activities (Adekunmisi et al., 2013; Anasi, 2008; Ani, 2010; Edem & Ofre, 2010; Madumere et al., 2020; Nwazor & Godwin-Maduike, 2015; Olateju, 2019; Opesade & Afolayan, 2022; Osang, 2012). Indeed, they use their smartphone for purposes other than academics, especially during school periods. This phenomenon could have far-reaching implications on schoolwork participation and probably affect their academic performance. The concept of schools reflects a context where learners assemble in classes to learn, conduct work on projects and assignments, and generally engage in a study (Salmela-Aro & Upadaya, 2012). Similarly, schools represent places where students strive toward achieving specific academic objectives such as earning a certificate, accomplishing a career path, improving academic performance, and others (Siu et al., 2014).

However, reports indicate that most students show a declined interest in their schoolwork (Appleton et al., 2006). Accordingly, research demonstrates that as most students progress in their educational pursuit, the probability of them disengaging from their schoolwork increases (Marion et al., 2014; Siu et al., 2014). For instance, students who are motivated and fully participate in their schoolwork responsibilities are more likely to secure positive outcomes. Equally, students who disengage from schoolwork activities are likely to experience decreased academic development. Consistent with this assertion, several studies have associated improved levels of schoolwork participation with positive educational outcomes such as increased performance (Bakker et al., 2015; Salanova et al., 2009; Schaufeli et al., 2002). Conversely, other studies linked schoolwork disengagement to numerous academic consequences such as burnout and depressive symptoms (Marrion et al., 2014; Salmela-Aro et al., 2009; Salmela-Aro & Upadaya, 2012). Remarkably, these studies are indicative of the importance of students' participation in schoolwork activities.

Importantly, Salmela-Aro and Upadaya (2012) suggested that schoolwork participation encompasses the energy, dedication, and absorption in schoolwork. Energy herein is considered a positive approach to schoolwork. Dedication entails a solid positive cognitive attitude toward school activities. In contrast, absorption describes total concentration in studies. Following the relevance of schoolwork participation to academic performance, it would seem essential to consider the factors that could impact schoolwork participation and the psychological processes that may support such impact. In that sense, one probable antecedent that is purported in the current paper to have an effect on secondary school students' schoolwork participation is problematic mobile phone use. The present article insinuates that the passion for smartphones coupled with an irresistible and compulsive urge to engage in online chat with friends on social media such as Facebook and WhatsApp contribute to the growing decline in school work participation among Nigerian students.

Smartphones are handheld electronic devices that generally provide a connection to the internet. Equally, they are intelligent mobile phones designed to keep users connected through various means. Smartphones offer numerous structures and give users more access to features surpassing phone calls and text messages. The smartphone contributes immensely to education in that it provides users the opportunity to explore various educational materials with its multifunctional features (Lei et al., 2020). Indeed, smartphones provide students access to information relative to academic development. However, the use of smartphones for social purposes is increasingly undermining their purported use for academic achievement in contemporary societies. Although they have become essential in modern-day lives, excessive use of smartphones provides substantial opportunities for addiction (Choi et al., 2020). Problematic mobile phone use describes compulsive use of mobile phones, usually measured as the number of times people access their smartphones and the total time they stay online over a given period.

Problematic mobile phone use and schoolwork participation

Several disparate studies have been conducted on mobile phone overuse under different but related appellations, including but not limited to smartphone addiction, excessive mobile phone use, and the like (Adeniyi, 2021; Adeyemi, 2021; Akpunne & Uzonwanne, 2020; Akpunne & Akinawo, 2019; Ayandele et al., 2020; Balogun & Olatunde, 2020; Iorver Igyuve et al., 2018; Obi et al., 2020; Onuoha & Bada, 2018; Onuoha, 2019). The literature is also abounding with studies on schoolwork participation (Bakker et al., 2015; García-Ros et al., 2018; Marion et al., 2014; Salmela-Aro et al., 2009; Schaufeli et al., 2002; Shih, 2012). However, much has not been done to fully explore the relationship between problematic mobile phone use and schoolwork participation in the Nigerian context. This lack of research synthesis hinders our understanding of how mobile phone overuse can affect schoolwork participation among secondary school students. Nonetheless, it seems probable that young learners who are passionate about online activities may become addicted to their mobile devices to sustain their passion for online happenings, which in turn may decrease participation in their schoolwork.

Indeed, most students dedicate a considerable amount of their time surfing the internet using their smartphones. Importantly, their sustained use of the internet is primarily for social exchanges and other actions unrelated to their academic pursuit (Enwereuzor et al., 2016). Owing to smartphones' high accessibility and mobility, extensive and pervasive use of smart mobile phones has become the social norm, exposing users to several risk factors and health challenges (Yu & Susman, 2020). The more an individual uses a smartphone, the more likely they are exposed to numerous favorable and unfavorable outcomes. For example, the persistent pings, buzzes, and beeps accompanying smartphone use

can instigate a distinct distraction for a student leading to deviation in essential tasks, including deterioration in schoolwork. And increased interruption to moments crucial to reading books, interfering with students' reading culture.

Hypothesis: *Problematic mobile phone use would significantly correlate with schoolwork participation among secondary school students in Enugu State, Nigeria*

Method

Participants

Students from secondary schools in the Enugu State of Nigeria constituted the research population. A total of two hundred and fifty-two ($n = 252$) students within the age range of 13-18 years, comprising males and females enrolled in senior secondary school level, were conveniently selected from five public and private secondary schools in the Enugu metropolis.

Measures

Participants completed a self-report questionnaire assessing problematic mobile phone use and schoolwork engagement. All response formats were based on Likert scales except demographic items.

Schoolwork engagement was assessed with the Salmela-Aro and Upadaya's (2012) Schoolwork Engagement Inventory (EDA), which encompasses nine items designed to evaluate respondent's energy (e.g., "I feel strong and vigorous when I am studying"), dedication (e.g., "My schoolwork inspires me"), and absorption (e.g., "I feel happy when I am working intensively at school") concerning schoolwork. Respondents rated the degree to which each item applied to them based on estimation from the previous month, using a 0 (never) to 6 (daily) response scale. Items were averaged to form an overall scale score. Higher scores indicate greater engagement with schoolwork. The inventory has a satisfactory level of Cronbach's alpha (α) coefficient of .78 in the present study.

Problematic mobile phone use was assessed using the Smartphone Addiction Scale-Short Version (SAS-SV) developed by Kwon et al. (2013). The (SAS-SV) encompasses ten items, with responses to each item scored on a 6-point scale ranging from 1 (strongly disagree) to 6 (strongly agree). Sample items contain: "Having my mobile phone in my mind even when I am not with it," and "The people in my surrounding always comment on my use of a smartphone." The score on the instrument ranged from 10 to 60. Higher scores indicate problematic mobile phone use. The instrument is internally consistent with Cronbach's α coefficient of .73 obtained in the contemporary sample

Procedure

Senior secondary school students who have access to smartphones were recruited from five public and private schools in Enugu between February and April 2022. About 272 students were approached and asked to participate in a survey to understand their use of mobile devices following authorization from heads of the schools. In all, 265 consented to participate in the study. Importantly, two hundred and sixty-five (265) copies of the questionnaires were given to the participant to complete on the spot. However, only the correctly filled copies (i.e., 252) were subjected to data analysis. The other 13 copies were discarded for wrongful filling.

Result

A cross-sectional research design was adopted in the study. Data from the respondents were analyzed using the statistical package for social sciences (SPSS, Version 23). A simple regression analysis was conducted to test the assumption that problematic mobile phone use would significantly predict schoolwork participation among secondary school students in Enugu State, Nigeria. The investigation revealed that problematic mobile phone use statistically significantly predicted the respondent's schoolwork participation $F(1,250), 36.71, P < .000$. Thus, the result affirmed the hypothesis that problematic mobile phone use would significantly correlate with schoolwork participation was supported.

Table 1:

Table showing the simple regression result for problematic mobile phone use and schoolwork participation.

| | B | SEB | β | t | Sig |
|----------|------|------|---------|--------|------|
| Constant | 1.84 | .033 | | 53.67 | .000 |
| PMPU | -.73 | .043 | -.77 | -16.71 | .000 |
| R^2 | .211 | | | | |

Note. PMPU= Problematic mobile phone use; B = Unstandardized regression coefficient; SEB = Standardized error of the coefficient; β = Standardized coefficient; R^2 = Coefficient of determination. * $P < .000$.

Discussion

The study examined problematic mobile phone use as a predictor of schoolwork participation among secondary school students in Enugu State, Nigeria. Data from a convenience sample of two hundred and fifty-two respondents were analyzed

using simple regression analysis. The result demonstrated that problematic mobile phone use statistically predicted schoolwork participation among the respondents. More so, the result indicates that problematic mobile phone use accounted for about 21.1% of the variation in schoolwork engagement among the samples. This entails that the compulsive use of mobile devices contributes significantly to students' overall disengagement in the modern-day educational system. The probable explanation for this outcome might be attributed to the multi-features embedded in the smart devices, which provide users the avenue to engage in multiple online activities mainly related to gaming, instant messaging, social exchanges, business exploration, and other fun activities. Also, reading in recent days has been neglected by many students who perceive studies as necessary during an examination. Also, some might believe that reading offers no immediate reward commensurate with the fun of the smartphone.

The finding is consistent with previous studies (Anyira & Udem, 2020; Oji & Erubami, 2020). For example, Bukhori et al. (2019) established a correlation between students' smartphone addiction and textbook reading intensity. Recent studies have noted a significant relationship between smartphone overuse and reading distractions (Gezgin et al., 2021), including reading attitudes (Çizmeçi, 2017; Levratto et al., 2021). The finding can be described on the conception that compulsive smartphone use negatively affects the motivation to participate in reading and other school activities. The study's findings indicated that the respondents varied in schoolwork participation which affirms the constant concern by educators concerning the declining engagement culture by many students despite the importance attached to schoolwork. Despite the increasing popularity of smartphones in modern-day societies, their overuse among students has been broadly discouraged because of their negative impact on academic performance (Lin et al., 2021). Thus, the present finding proves that problematic mobile phone use correlates significantly with schoolwork participation in Nigeria's educational context.

Practical implication

The finding has provided evidence supporting the predictive effect of smartphone overuse in the increasing decline in schoolwork participation in secondary schools in Enugu state. Also, the study helps provide relevant data to the education administrators, stakeholders interested in promoting schoolwork in Nigeria, and researchers since the result provided insight into the possible variable in poor schoolwork engagement.

Conclusion

The current study examined reading culture in the era of growing compulsive use of intelligent mobile devices among undergraduates. Two hundred and fifty-two senior secondary school students were recruited for the study. Indeed, the simple linear regression conducted on the data confirmed the study's expectation. Thus, the study concluded that problematic mobile phone use is a crucial determinant of student-schoolwork participation. It is essential to report the observed limitation relative to the present study. Firstly, the sample size, comprising only students from secondary schools in the Enugu states, limited the current study's generalization. Thus, more comprehensive samples are needed in future research. More so, the data used for the analysis was exclusively based on self-report, which could raise the issue of common method variance. Multiple data collection methods are required to have trusted data for generalization. However, the present paper contributes to the literature by revealing problematic mobile phone use as an antecedent of schoolwork participation. Therefore, expanding our knowledge of the influencing variables in the declining schoolwork engagement in secondary schools in the Enugu state of Nigeria.

Moreover, research attempting to investigate the relationship between smartphone addiction and reading culture using Nigerian samples is scarce, justifying the present study. Nevertheless, it is unclear if other variables contributed to the study's result. Thus, more research is needed to determine other intervening variables in the relationship between problematic mobile phone use and schoolwork engagement in the Nigerian context. Furthermore, since most students are addicted to their mobile phones, e-books and e-assessments should be extensively employed to attract their attention to class projects and assignments.

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