



A Study to Determine the Effect of Smartphone Addiction on Academic Performance and Mental Wellbeing of College Students in the Post COVID-19 Scenario

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ABSTRACT

Smartphone addiction is a one type of condition in which a person may have a compulsive desire to use mobile phone extensively. Academic performance is a measure that determines how well a student performs within the educational setting, and mental well-being is a state that describes how well an individual feel, thinks and cope with their stress positively. The usage of smartphones expanded significantly after the COVID-19 epidemic, particularly among students, who were much more reliant on technology for educational purposes. The purpose of this study is to determine whether smartphone addiction influences students' academic performance and mental well-being. A total number of 42 university students participated in this study. Standardized scales were used to assess the smartphone addiction, academic performance, and mental well-being. Furthermore, the findings revealed that smartphone addiction is positively correlated with academic performance and mental well-being. However, there was no significant correlation found between academic performance and mental well-being. Hence, we may conclude that smartphone addiction has a beneficial effect on academic performance and mental well-being in the post-COVID-19 situation, because students now learn how to utilize their smartphone effectively for study and self-development purposes. This research additionally suggests that students must be advised on how to use their mobile phones more appropriately for themselves, as smartphone addiction can be a serious threat to their social lives.

Keywords: smartphone addiction, mental well-being, academic performance

Introduction

"We don't have a choice on whether we do social media, the question is how well we do it."- Erik Qualman

With the advancement of technology, people are more likely to become victims of internet addiction. Due to the COVID-19 outbreak, which compelled people to stay inside their houses, it was the internet that kept people linked digitally. Students at the time were more likely to spend their time on mobile phones, laptops, and other electronic devices. The condition of smartphone addiction, also known as nomophobia (fear of being without a phone), is characterised by a person's compulsive desire to use mobile devices. Smartphone addiction is a serious disorder that makes it impossible for a person to manage how much time they spend on their phone. It frequently results from loneliness and has a significant impact on the overall cognition and sleep patterns of an individual. Academic performance is a measure that allows us to assess how well a student reaches their educational objectives. Academic performance evaluates the gap between a student's present level of performance and their predefined goals. The complete performance of a student within a classroom setting can be summed up as academic performance. Mental well-being is a condition in which we describe how an individual perceives their life. Mental well-being can also be defined as how a person feels, thinks, and functions in day-to-day life and how they cope with their daily challenges effectively. A study was conducted to analyse the effect of smartphone addiction on academic performance, in which 293 university students participated. The findings revealed that both male and female students were equally susceptible to smartphone addiction and, despite having the same level of addiction, both tended to achieve higher GPAs. However, students who were at high risk of smartphone addiction achieved a lower cumulative GPA (Hawi & Samaha, 2016). Another study was conducted to evaluate the relationship between smartphone addiction and the mental well-being of university students; a total of 408 students participated, of which 303 were female and 105 were male students. The results revealed that mental well-being and smartphone addiction are significantly correlated (Kumcagiz et al., 2016). Another study was conducted to determine the effects of smartphone addiction on academic performance, physical health, and mental well-being in Saudi university students. A total of 545 undergraduate students, ranging in age more than 21, took part in the research program. The results showed that individuals who were smartphone addicted had lower academic performance, were physically inactive, had acute pain in their eyes, shoulders, and neck, and were also victims of serious mental illness (Alotaibi et al., 2022).

Variables

Smartphone Addiction

According to Griffiths (1996) smartphone addictions is considered as “non-chemical behavioural addictions that involve human–machine interaction and is non-chemical in nature.” Another definition given by Whang et.al. (2003) states that smartphone addiction is “an impulse-control disorder with no involvement of an intoxicant; therefore, it is akin to pathological gambling.

A research study was conducted to analyse the relationship between smartphone addiction tendency, depression, aggression, and impulsions in college students. A total of 353 college students from Cheonan participated in the research survey. The result showed that there is a significant positive correlation between smartphone addiction and depression, as well as a positive correlation between smartphone addiction and aggression and impulsions (Kim et al., 2015). Another research study was conducted to investigate the relationship between smartphone use and smartphone addiction with mental health such as depression, anxiety, stress (DAS) and life satisfaction (SWL) in university students. A sample of 601 university students from the United States participated in this research programme. The research findings suggested that smartphone use has a significant negative correlation with mental health (DAS) and a positive correlation with life satisfaction (SWL). However, there was a significant positive correlation between smartphone use and smartphone addiction (Kil et al., 2021).

Academic Performance

According to Narad and Abdullah, (2016) academic performance is defined “as the knowledge gained by the student which is assessed by marks by a teacher and/or educational goals set by students and teachers to be achieved over a specific period of time”. Another definition given by Díaz-Morales and Escribano (2015), which states that academic performance can be understood “as the result of a combination of psychological, social, and economic factors, which further lead to the proper multifaceted growth of students.”

A study was conducted to examine the influence of students' motivation on their academic performance among university students. A sample size of 342 students from different universities in Pakistan participated in this research survey. The study attempts to describe how intrinsic motivation and extrinsic motivation affect the academic performance of a student. The results explained that students who are motivated intrinsically (self-exploratory and altruism) achieve higher academic performance, whereas students who are motivated extrinsically (career, qualification, social adjustment, and social pressure) tend to perform worse than other students (Afzal et al., 2017). Another study was conducted among 1508 tertiary students to determine the impact of social media use on academic performance. The results revealed that every student spends approximately 30 minutes to 3 hours per day on social media, and the vigorous social media usage has negatively impacted the academic performance of students; additionally, there is a close relationship between social media usage and academic performance (Acheaw and Larson, 2015).

Mental well-being

According to Burns (2016) mental well-being refers to, “inter- and intra-individual levels of positive functioning that can include one’s relatedness with other and self-referent attitudes that include one’s sense of mastery and personal growth”. Another definition given by Burris et al. (2009) which states that “Mental well-being refers to the simple notion of person’s welfare, happiness, advantages, interest, utility and quality of life.”

In a study done by Obrenovic et al., (2020) among 277 company employees of Bahrain in which the researcher attempted to examine the association of work-family conflict and job performance as well as its effect on the mental well-being and psychological safety of an individual. The findings revealed that there is a negative impact of work-family conflict on the mental well-being and psychological safety of an individual, which in turn also affects the job performance of the employee. Another research study was also conducted to understand how social media impacted the mental well-being of young web users during the COVID-19 pandemic. A total of 254 samples of data were collected, in which it was found that young web users spend almost all of the day online during the self-isolation period in order to escape from negative thoughts and negative emotions. Social media usage has ultimately disrupted healthy sleep patterns and mental well-being; moreover, due to its intense use, it has elevated the feeling of alienation among young people during this pandemic (Hudimova et al., 2021).

Purpose

The purpose is to study the effect of smartphone addiction on the academic performance and mental well-being of college students.

Hypothesis

There will be a significantly negative correlation between smartphone addiction and mental well-being.

There will be negative correlation between smartphone addiction and academic performance.

Method

Sample

A total number of 42 participants ranging between the age of 17 years to 25 years, participated in this research programme.

Measures

- **The Smartphone addiction Scale-Short Version:** The SAS-SV was developed by Kwon, M., Kim, J., Cho, H., and Yang, S. (2013) and consists of 10 items intended to determine the level of smartphone addiction. Each item was rated using a six-point Likert scale with six dimensions: "strongly disagree", "disagree", "weakly disagree", "weakly agree", "agree", and "strongly agree".
- **Academic Performance Questionnaire:** The APQ was proposed by Gregory(2015), which comprised 8 items, which were used to evaluate the academic performance of the students. Each item is scored on a 5-point Likert scale which ranges from "strongly agree" to "strongly disagree".
- **The Warwick-Edinburgh Mental Wellbeing Scale:** The WEMWBS was created by Kammann & Flett (1983), and comprises 14 items, each of which is scored on a 5-point Likert scale with the parameters of "none of the above", "rarely", "some of the time", "frequently" and "all of the time". This scale is required to assess the participants' mental health.

Procedure

Standardized psychological testing was provided to the participants. The questionnaire was distributed and recorded through the use of Google Forms. In order to receive open responses from participants without fear, the participants were assured that the information they would provide will be kept confidential.

Analysis of data

Results

Table 1: Descriptives

	Smartphone Addiction	Academic Performance	Mental well-being
N	42	42	42
Mean	29.8	30.4	45.3
Standard deviation	10.1	5.38	8.38

Table 2: Correlation Matrix

	Smartphone Addiction	Academic Performance	Mental well-being
Smartphone Addiction	—		
Academic Performance	0.053	—	
Mental well-being	0.121	0.008	—

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Discussion of the result

The result found that smartphone addiction is positively correlated with academic performance and also it is seen that, there is a positive correlation between smartphone addiction with mental well-being as well. However, there is no significant relationship found between academic performance and mental well-being.

A research study was carried out to understand the impact of content use on smartphone addiction and academic performance, the data was gathered from 250 undergraduate students. The result found that entertainment, social-networking sites, and game-related uses are positively correlates with smartphone addiction. However, study-related apps have a positive influence on the academic performance whereas game related usage has a negative influence on the academic performance of the students. Additionally, physical activity act as preventive measure to moderate the effects of game-related use on academic performance of the students (Abbasi et al., 2021). Another research study was conducted by Chaudhury & Tripathy (2018) to analyse the impact of smartphone addiction on academic performance, a total of 222 university students participated in the questionnaire. The result findings suggest that intense smartphone usage leads to low academic performance in university students. Additionally, other factors such as internet connectivity and active involvement in outdoor activities are negatively correlated with academic performance. A similar study was done with the aim of investigating the factors which affect the level of smartphone addiction and how it impacts the overall academic performance of students. A total number of 247 questionnaires were collected from the business students of the private university of Bangladesh. The results showed that there are five factors that affect smartphone

addiction i.e., positive anticipation, impatience, withdrawal, daily-life disturbance, and cyber friendship. Factors such as impatience and daily-life disturbance are significantly related to the academic performance of university students (Arefin et al., 2018).

Conclusion

The current study emphasis on finding the correlation between smartphone addiction, academic performance and mental well-being among the college students, age between the range of 18-25 years. Data collection was done using standardized tests such as Smartphone addiction scale- short version which contain 10 items which was used to assess the level of smartphone addiction in an individual, Academic Performance questionnaire which comprises of 8 items to evaluate the academic performance of the students and The Warwick-Edinburgh Mental Wellbeing Scale which comprises of 14 items that is used to examine the mental well-being of the participants. A total number of 42 participants participated in this research study. The questionnaires were distributed and recorded through Google Forms. The result findings of this research study reveals that smartphone addiction has a positive impact on the academic performance and mental well-being of the students. However the result also showed that there is no significant correlation between academic performance and mental well-being of the students.

The data emphasis that smartphone addiction has a favourable impact on the academic performance and mental well-being of the students. Students' usage of technology has expanded in the post-covid-19 environment. Students today are far more dependent upon technology, particularly in terms of academic learning. Due to the tremendous hype around online education, students are required to rely on the Internet and mobile phone for their educational purposes, which explain why smartphone addiction has a beneficial impact on their academic success. Unfortunately, its impact can have a negative influence on their social lives. Currently young students have been more habituated to the usage of mobile phone and now they learned how to utilize their smartphone productively and effectively. Students also learned how to use their smartphone for their self-improvement which explains why the smartphone addiction positively correlated with the mental well-being of an individual. As a matter of fact, the consequence of the smartphone addiction is much more dependent on the content they are exposed to, if students use their technological device for study purpose it will undoubtedly have a positive impact on their academics; however, if they spend their important time in watching movies or playing games on their phone, it will indeed have an effect on their academics and mental well-being. Therefore, it is recommended that student must be given proper awareness about how to use their smartphone appropriately and wisely, as excessive use can ruin their social lives and will separate them from reality. Furthermore, it is a crucial step to comprehend the devastating consequence of smartphone addiction.

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