



A Comparative Study on Academic Performance of Smartphone Addicts and Non-Addicts

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ABSTRACT

Due to the multifaceted capabilities of the smartphone, college students have become increasingly susceptible to the overuse of and addiction to smartphone use. This susceptibility has led to many negative effects both mentally and physically in addition to the creation of new pathologies. There are many scales to measure smartphone addiction; however, scales to measure smartphone addiction are scarce and have limitations that call into question their validity and reliability, especially for use on Indian college students. The current study aimed to investigate the validity and reliability of a diagnostic tool to measure smartphone addiction in Indian college students. A total of 146 young adults from both the genders ranging from 18-24 years of age were recruited using scaling techniques. The research aimed to account for the limitations that were present in previous scales and to further the support of smartphone addiction as a valid diagnosis that should be recognized by reputable resources. The results found Smartphone Addiction scale to be reliable across time in addition to having internal

consistency. Additionally, the evaluation of construct validity using positive and negative correlations indicated support for a valid measure. This study provided a new smartphone addiction measurement tool that may allow for a way to clinically diagnosis addiction among college students.

Key Words: *Academic Performance, Smartphone Usage, Addiction, Non-Addiction*

INTRODUCTION

A smartphone is an advanced smartphone device designed to solve everyday accessibility problems. Smartphones offer many functions and allow more than just calling and texting. Smartphones have become a highly sought-after device because they can perform both basic and advanced computing functions. All problems can now be solved with one touch. Therefore, in today's lifestyle, people cannot do without it, and it has become a necessity.

The use of smartphones provides high-quality performance and quick access to information and entertainment, such as smartphone voice and video calls, smartphone conferencing, sending, and receiving e-mails, and easy access to the Internet for a variety of people, including students. Another use is entertainment and social media. It is a source of all kinds of social ties and entertainment. Due to this, people, especially students, become addicted to it, which in turn affects their studies, moral values, and mental and physical health (Raza et al., 2020). At the same time, the smartphone has also made life easier for students because they can use the device to access information about their school through electronic learning (e-learning) and smartphone learning (m-learning) and can learn or get all kinds of information. about them (Ali et al., 2018).

Despite the many benefits and advantages of smartphones for students, they also have many disadvantages and negative impacts that cannot be ignored. There are still issues that

need attention when it comes to students using smartphones in their academic journey. The question is, do students benefit from the academic use of smartphones? Does it help improve student learning outcomes? The more students use smartphones, the more they are exposed to many positive and negative influences. Student life revolves around smartphones that create, create, or change their behavior due to the development of technology. Students focus or rely more on smartphones for schoolwork or social media (Raza et al., 2020).

A survey done on smartphones based on a data-graphic survey (HackCollege.com) found that 57% of students use smartphones, 60% report smartphone addiction, 75% sleep next to their smartphones, 88% text before bed, and 97% of smartphone owners use them to social networks and 40% use smartphones for reading homework (Alexander, 2011).

Therefore, smartphones can be dangerous weapons for students that weaken their communication skills and social life. The results of this study provide educational policy makers and educators with information on how the use of smartphones in educational activities affects student academic performance. Turn to sleep, 97% of smartphone owners use them for social networking, and 40% use smartphones to read schoolwork (Alexander, 2011). This is why smartphones can be a dangerous weapon for students to impair their communication skills and social life. Findings from the current study provide educational policy makers and educators with information on how the use of smartphones in educational activities affects students' academic performance.

Smartphone Addiction

The American Society of Addiction Medicine (2011) defined addiction as “a chronic disease of reward, motivation, memory, and related brain circuits” (p. 1), characterized by a person's inability to abstain from use, dysfunction. behavioral control, inadequate recognition of behavioral and interpersonal problems, and emotional response dysfunction. Addiction is

usually talked about in relation to drug use, but the language of addiction can also apply to a variety of stimuli, including smartphone use.

The concept of addiction in relation to smartphone and smartphone use is not a new wonder, with several experimenters exploring this wonder (e.g. Carbonell et al., 2018; De-Sola Gutiérrez et al., 2016; Jenaro et al., 2007; Kwon et al. al., 2013; Lopez-Fernandez et al., 2017). Smartphones have advanced features such as the ability to download and use applications and access the Internet (Smith, 2011). Historically, smartphone addiction has been classified as problematic smartphone use (Carbonell et al., 2007; Lopez- Fernandez et al., 2017; Smetanuik, 2014). Smartphone addiction is characterized by behavioral addiction, a complaint with symptoms expressed in behavior and associated with a pleasurable and contagious quality (Black, 2013).

Adolescents and young adults are important group of smartphone users and have a high prevalence of smartphone addiction. Smart phone addiction can have a severely negative impact on an individual's physical and mental health, with studies finding that smartphone addiction can disrupt attention, impair academic performance, reduce life satisfaction, increase depression, anxiety, and stress, and potentially lead to sleep disorders, suicidal ideation, and non-suicidal self-injury. Therefore, it is of great importance to pay in-depth attention to smartphone addiction to promote prevention and intervention practice.

Psychological scales are an indispensable tool for conducting empirical studies on smartphone addiction. Researchers have developed various versions of scales to measure smartphone addiction. Some scales are specifically for adolescents, such as the Smartphone Addiction Scale-Short Version for Adolescents and its multiple language versions while some are specifically for college students, such as the Smartphone Addiction Scale for College Some others, however, are applicable to multiple age groups, such as the Smartphone Problem Usage Scale, Smartphone Addiction Index scale. Others, however, contain multiple

dimensions that focus on different symptoms of smartphone addiction and include sub-dimensional scores to reflect specific symptoms of the addiction and the summation of individual dimensional scores to reflect the overall situation of individual smartphone addiction. Nevertheless, there is a lack of established scales that can be used to measure different types of smartphone addiction.

Because of the diversity of smartphone functions, different individuals may have different preferences for smartphone usage: some are addicted to smartphone games, some are immersed in smartphone social networking services, while others may not be able to control using smartphones for acquiring various information. Individuals with the same overall level of addiction may have very different types of addictive problems. Although some research has focused on certain subtypes of smartphone addiction, such as smartphone game addiction and smartphone social networking addiction such studies are relatively few and existing psychological scales on certain subtypes of smartphone addiction have not been developed and tested for validity and reliability.

Academic Performance

Smartphone use is gradually becoming a compelling tool for improving literacy, tutoring and literacy in distance education. Its operation ensures flexible course delivery, allows students to tap into online literacy platforms, access course checkouts, and communicate digitally (Raza et al., 2020). But in the youth and especially among scientists, smartphone addiction is increasing due to over-reliance on technology in all aspects, so there is a need to harmoniously and completely investigate whether smartphone addiction is beneficial for scientists or has a negative impact on their academics. performance. In this area, numerous surveys have been conducted on different populations that have found positive

and negative relationships between smartphone addiction and academic performance.

Lepp, Barkley, and Karpinski (2014) examined the relationship and set the negative impact of the smartphone. reliance on academic performance on council scholars. Smartphone addiction has a positive effect on life satisfaction but a negative effect on academic performance (Samaha & Hawi, 2016; Raza et al., 2020). The study will examine the use and impacts of the smartphone as a literacy tool on the academic performance of council scholars. As there is still confusion that smartphone addiction is beneficial in the life of scientists or has a negative or positive effect on the academic performance of scientists, this study would provide another deeper insight into the effects that smartphone has. could have on the student's academic performance.

More than 70% of respondents use smartphones positively to learn new words, access course information, and read course material. On the contrary, they use phones during lectures to check notifications and use WhatsApp. Excessive smartphone use can hinder students' attention, increase distraction, and reduce study time. Ultimately it will impact their academic performances. To mitigate these negative effects, educational institutes, parents, and students themselves must work together to establish guidelines for responsible smartphone use and promote a balanced approach to technology integration in the learning process.

Junco and Cotton (2012) found that a high frequency of smartphone usage was negatively related to student's GPA, suggesting that unnecessary use of smartphones may lead to decreased academic performance. Similarly, a different study conducted by Lepp et al. (2015) found a negative correlation between smartphone dependency and academic success among college students.

METHODOLOGY

Aim

The research aimed to explore how the academic performance gets affected by the usage of smartphone for those who are addicts and non addicts aged 18-24.

Variables

- ***Smartphone Addiction:*** Smartphone addiction is the obsessive use of a smartphone. The behavioral addiction is often dubbed as “nomophobia,” or the fear of being without a mobile device. There are over 3.8 billion smartphone users in the world.
- ***Academic performance:*** Academic achievement or academic performance is the extent to which a student, teacher or institution has attained their short or long-term educational goals. Completion of educational benchmarks such as secondary school diplomas and bachelor's degrees represent academic achievement.

Research Objectives

- a) To access the comparison between smartphone addiction and academic performance.
To access the comparison between smartphone addicts and their academic performance.
- b) To access comparisons between non-smartphone addicts and their academic performance.

Hypothesis

- There will be a positive correlation between smartphone addiction and academic performance, but it will be not significant.
- There will be no significant difference between academic performance and gender.
There will be no significant difference between both the gender.

Sampling Technique

The study included 146 participants with 70 females and 76 males. In this study we have used random and stratified sampling technique.

Description of Tools

- ***Smartphone Addiction Scale (SAS; Kwon et al., 2013)***

The SAS scale consists of a series of statements or questions that require participants to reflect on their own behaviors related to smartphone usage. These statements address behaviors linked to excessive smartphone use, such as an excessive preoccupation with smartphones, a persistent urge to check the device, emotional dependence on smartphones, and similar patterns. Scoring Procedure: In the SAS scale, participants typically provide responses to each question using a Likert scale, ranging from 1 to 6. These values correspond to: 1: Strongly Disagree, 2: Disagree, 3: Slightly Disagree, 4: Slightly Agree, 5: Agree, and 6: Strongly Agree. The total score is calculated by summing the responses to all questions. Consequently, the resulting total score ranges from 6 (indicating no dependency) to 36 (indicating a high level of dependency). Interpreting Scores: Common interpretation of SAS scores might be as follows: (6-17: Absence of smartphone dependency, 18-24: Typical smartphone usage, 25-30: Moderate smartphone usage, 31-36: Elevated smartphone

dependence). Higher scores indicate more significant smartphone usage and an increased level of dependency.

- ***Academic Performance Scale***

The academic performance scale (APS) is a comprehensive measure of academic performance that includes in total 8 items using the 5-point scale to answer each question so that it accurately reflects what you do or have done the scoring is as following to the score scale, strongly agreed= 5 agree=4 neutral=3 disagree=2 and strongly disagree=1. The total score indicates few parameters of the students. If the score lies 33 to 40 then it shows excellent performance. If the score lies between 25-32 then it shows good performance. If the score lies 17-24 then it shows moderate performance. If the score lies 9-16 then it shows poor performance. And last if the score lies between 0-8 it shows failing performance.

Statistical Analysis

Microsoft Excel was used to score the variables to ensure accuracy. Data were statistically analyzed using SPSS to calculate descriptive statistics and Pearson's correlation.

Procedure

Participants were given informed consent to participate in the review and were assured that their information would be kept private and used only for the ultimate purpose of the review. After improving the compatibility, they were given legitimate instructions and approached to provide the subtleties of their segment and begin the completion of the survey. A survey was shared with participants that included a sociodemographic section and scales to assess smartphone addiction and academic performance. They were given enough time to answer each item.

Result**Table 1**

Mean, Maximum, Minimum, Standard deviation of smartphone addiction and academic performance

	N	Minimum	Maximum	Mean	Std. Deviation
Smartphone Addiction Scale	141	37	164	109.546	27.0149
Academic Performance Scales	141	8	40	28.2199	7.00009

Table 1 shows that the mean of the data collected for smartphone addiction scale is 109.546, and the mean of the data collected for academic performance is 28.2199. The standard deviation calculated for smartphone addiction is 27.0149. And the standard deviation calculated for academic performance scale is 7.00009.

Table 2

Pearson's correlation between smartphone addiction and academic performance

Smartphone Addiction Scale	Pearson Correlation	1	0.03
	Sig. (2-tailed)		0.76
	N	141	141
Academic	Pearson Correlation	0.03	1

Performance Scales	Sig. (2-tailed)	0.76	
	N	141	141

Correlation is significant at 0.01 level (2-tailed). The result indicates that there is a positive correlation but not significant difference between smartphone addiction and academic performance. The result shows that there is no significant difference between academic performance and gender. The result shows that the addicts are less than in comparison of non- addicts.

Discussion

The objective of this study was to access a comparison of academic performance of the smartphone addicts and non-addicts. The result is accepted as it shows positive correlation but not significant relationship between Smartphone dependence and academic performance for studies in other words, the thesis shows that there's a positive relationship between smartphone dependence and academic performance. As we've bandied preliminarily in the study of it investigates the effect of smart phone use by council scholars on their academic performance and this study results in a positive relationship between smartphone addiction with academic performance. The difference between the gender isn't significant. The difference between academic performance scale and gender aren't significant. The difference between smartphone scale and gender aren't significant.

First it is clear from looking at the descriptive statistic in table 1 that academic performance and smartphone addiction have a very vast different mean score and standard deviation this show that there is no significant difference between the smartphone addiction and academic performance. And the correlation is very weak positive correlation.

Additionally, table 2 of correlational analysis rebuild that there is positive correlation between smartphone addiction and academic performance, but it is not significant. despite a slightly higher mean level of academic performance, scale the statistical analysis indicates that this difference was not significant this suggest that the smartphone addiction does not have any effect on academic performance of the young adults in the study.

Conclusion

The purpose of this research is to identify the impact of smartphone usage on the academic performance of the young adults and for that we have observed the relationship and linkages between the smartphone addiction and academic performance of the young adults.

As in youth, Smartphone addiction is getting higher due to the over dependency on technology in every aspect, therefore it required to have a consistent and complete research of whether smartphone addiction is beneficial for the students, or it influences negatively on their academic performance.

The conclusion of the study is that after doing the research we have conclude that there is a positive correlation but non-significant relation between the smartphone addiction and academic performance.

The research also tells us that in the response there are more people who are non addicts in comparison to those who are addicts.

For those who are addicts it doesn't cause much impact on their academic performance. The difference between both the genders i.e. male and female also doesn't have any significant difference and there is no correlation between the academic performance and the gender. After many research confusions still arises whether the smartphone addiction is beneficial in students Life and does it have negative or positive effects in their academic performance

This research is quantitative in nature because the data has collected and converted into numeric form and then findings are analyzed and evaluated by statistical techniques. The study used the random and stratified sampling techniques. The sample size of the study was 146 respondents.

In this research we have used correlation design because we have studied the relationship between smartphone addiction and academic performance.

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