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RESEARCH PAPER

Smartphone Addiction and Student Learning: A Study on University Students in Karachi

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ABSTRACT

This study examine the correlation between smartphone addiction, and academic stress among university students. With smartphones and other portable devices playing a bigger role in our everyday lives. The study employed a descriptive approach and interviews from students from University Sindh, Jamshoro. The study involved 108 students enrolled in University of Sindh, Jamshor selected using a multi-staged random sampling technique. The study involved 50 social science and 58 science students. This study identified a positive relationship between smartphone addiction, and academic stress among university students, although no significant differences were detected among demographic groups. Findings revealed a significant correlation between these factors and academic stress, highlighting the increasing prevalence of smartphones in the 21st century. The study highlights the detrimental impact of smartphone addiction on university students' stress levels and interpersonal relationships, emphasizing the need to tackle addiction and foster healthy relationships to improve academic performance. Self-regulation may enable pupils to concentrate better on their academics and other educational pursuits.

KEYWORDS Academic Performance, Academic Stress, Policy, Smartphone Addiction

Introduction

Technology has had a huge influence on communication and information acquisition, with smartphones and other portable gadgets becoming increasingly important in our daily lives. They provide functions other than talking and texting, such as taking, editing, storing, browsing the internet, and engaging in social media. The combination of digital technology and artificial intelligence has changed our lives (Muzaffar, et. al., 2019; Abid et al., 2020). Students have extensive access to information, communication, and entertainment through smartphones in university settings; however, worries about possible drawbacks, including smartphone addiction, have been voiced. Students frequently experience academic stress, which can have a detrimental effect on both their academic performance and emotional and physical well-being(Mansoor, Muneer, & Kanwal, 2020). Smartphone addiction negatively impacts university students' interpersonal communication skills, leading to increased academic stress and poor performance. It also highlights the need to address smartphone addiction in education(Saleem, Owaisi, & Tufail, 2015). Smartphone addiction among college students has a substantial influence on academic achievement because they prioritize checking their phones over attending lessons. There is a negative association between smartphone addiction and academic success, emphasizing the importance of appropriate regulation and prevention measures(Ahmed et al., 2020). Smartphone addiction may lead to isolation and loneliness among individuals who rely on their smartphones. This can lead to less face-to-face encounters, lower empathy and emotional intelligence, and more conflict in love relationships. Social media use has also been connected to decreased satisfaction and conflict levels. Despite its benefits, smartphone addiction is marked by withdrawal symptoms and difficulties quitting, and excessive and uncontrolled use can have harmful repercussions (Muzaffar, Yaseen & Safdar, 2020; Tariq, Usmani, Imran, & Faraz, 2019).

Smartphone addiction heightens susceptibility to negative emotions, academic stress, and social changes, resulting in diminished communication capacity and difficulty in face-to-face relationships. It has a detrimental influence on social connections, family dynamics, and college students' academic achievement. The study looked at the association between smartphone addiction, interpersonal relationships, and academic stress among Pakistani university students, underlining the possible harmful impacts of excessive smartphone usage(Khalil-Ur-Rehman et al., 2020).

The growing usage of smartphones among students raises worries about their possible harmful influence on academic performance and interpersonal relationships. The purpose of this study is to investigate students' perspectives of smartphone addiction, interpersonal connections, and academic stress at universities in university of Sindh Jamshoro, Pakistan, with a focus on demographic profiles and age disparities, in order to close the knowledge gap. The study investigated the correlation between demographic factors like gender, locality, institution type, program, and age and academic stress among university students, addressing research questions related to these factors. This study intends to assist policymakers and academic institutions in developing measures to combat smartphone addiction and its influence on students' interpersonal connections and academic stress. It will demonstrate the harmful consequences of addiction on school performance and give recommendations to legislators, parents, and educators to address these challenges. The report also promotes better living behaviors to help pupils achieve academic achievement.

Literature Review

The word "smartphone" was initially used in 1997 to distinguish between feature phones with limited capability and mobile phones with more advanced functions, with Ericsson's GS 88 "Penelope" being the first to be referred to as a smartphone(AlBoali, ALkhateeb, Alharbi, & Saleh, 2020). Addiction is a behavior defined by impatience, withdrawal, and dependency, which is frequently accompanied by a psychological desire for a fix. It may be divided into two types: behavioral addiction such as mobile phone addiction and chemical addiction such as opioids or alcoholism (Hussain, Mahesar, Shah, & Memon, 2017). Smartphone addiction is defined as excessive smartphone usage that has a detrimental influence on everyday life, with clinical symptoms including salience, lenience, and loss of control, attitude change, withdrawal signals, and desire. Different studies have found a strong link between academic performance, gender, age, and mobile addiction, with self-discussion and connected communication being critical for understanding the influence of smartphone addiction on interpersonal relationships(Soomro, Zai, Nasrullah, & Hina, 2019).

Academic Stress and Use of Smartphone

Academic stress encompasses students' perceptions of pressure, time limits, workload, and self-perception. High degrees of tension, worry, and despair are encountered. Furlonger and Gencic discovered no change in stress levels between on-campus and distance education. Teacher-student contact influences stress, with strong bonds resulting in reduced stress(Abid et al., 2020). Academic stress is linked to sleep issues among Pakistani medical students, lowering contentment, self-worth, and self-efficacy. Studies have also shown that students lacking coping skills are more likely to engage in stress-related behaviors such as anxiety, depression, and drug use(Mansoor et al., 2020). Mobile addiction can enhance sensitivity to interpersonal relationships and negative feelings, influenced by social and environmental factors like parent-child relationships, communication styles, attachment styles, friendships, school adjustments, academic achievement, and psychological factors(Ahmed et al., 2020). Pierceall and Keim 2007, found a correlation between stress and coping mechanisms in community college students. Schraml, Perski, Grossi, and Makower 2012, found a correlation between academic stress

and achievement, with academic performance generally declining with increased stress levels(AlBoali et al., 2020). Ross 2005, found that 50% of Thai students experiencing academic stress also suffer from depression, while 61% of medical students experience academic stress, with higher stress and sleep deprivation levels(Eldesokey, Gomaa, Sabri, El-Gilany, & Elwasify, 2021). Pakistan's youth population is increasingly using smartphones, with social applications becoming the primary device. Mobil ink, Telenor, and Ufone are the top three providers, with 77% of users aged 21-30. This shift from feature phones to smartphones is causing addiction, which can lead to health issues and psychological harm(Khalil-Ur-Rehman et al., 2020). Omer's 2020, study revealed significant differences in smartphone addiction levels, with females and medical students experiencing a constant increase. Poor sleep habits were linked to lower academic performance and smartphone addiction. The study underscored the need for responsible technology use (Sohail et al., 2020). Chiu, Hong, and Chiu (2013) found a strong link between internet and mobile phone addiction, with female college students performing better. They recommend future research on smartphone addiction, communication skills, and sorrow feelings(Saeed, Ullah, & Ahmad, 2020). Study findings shows a correlation between smartphone addiction and academic performance in students, with some studies suggesting a link between smartphone use and academic achievement. Nomophobia, a fear of the unknown, has been linked to stress, despair, and poor academic performance in medical students. Mobile phone dependence, mental health, and academic success are also linked(Ahmed et al., 2020). Smartphone use among university students has been connected to mental health problems, obesity, poor academic performance, physical inactivity, inadequate sleep, and shoulder, eye, and neck pain. Addressing smartphone addiction and poor sleep patterns might help improve academic performance and general health.

Conceptual Framework

The study employs social cognitive theory and Albert Bandura's social learning theory to investigate how media programming promotes violent conduct in young people. Bandura's theory proposes that bad social behaviors are taught through observation, modeling, and imitation, whereas media displacement theory contends that excessive media time impedes learning and creativity.

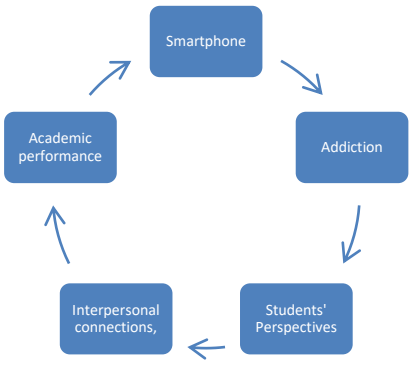

Figure 1. Conceptual framework

Material and Methods

The study utilized a descriptive research design and quantitative survey to explore university students' perceptions about smartphone addiction, interpersonal relationships, and academic stress. The study involved 108 students enrolled in University of Sindh, Jamshor selected using a multi-staged random sampling technique. The study involved 50 social science and 58 science students, with interviews conducted in local languages to ensure proportional representation of each strata and collect detailed participant input. The questionnaire responses were analyzed using descriptive statistics to estimate frequencies,

averages, standard deviations, and perceived difficulty variability. The research instrument, based on a thorough literature review, includes two sections: one discussing demographic factors like gender, age, and institution type, and the other discussing smartphone addiction, interpersonal relationships, and academic stress. The data for this study was collected via a survey questionnaire on students' academic attainment. The variables were adopted from G¨okc¸earslan et al. (2016), and the academic accomplishment items from Liran and Miller (2019). The study use a variance-based method to evaluate the theoretical model using, a statistical tool for determining theory validity.

Results and Discussion

Demographics

The demographic data analysis for Undergraduate, Graduate, and Postgraduate reveals that of respondents are male and female. The age groups are 18-22, 23-27, and 28-32, with respectively.

The study's conceptual model investigates the link between smartphone addiction and students' academic performance, as well as the influence of smartphone usage, self-regulation, and self-efficacy on classroom addiction, as seen in the model below.

The study uses data analysis to analyze the backgrounds of smartphone users and their judgments of the difficulty of academic development. Quantitative survey data with interviews and observations to create a full insight of participants' experiences. This section provides a comprehensive overview of the background characteristics of 108 smartphone users, offering valuable insights into their profiles.

The sample consisted of 63% female students and 37% male, with a 2:1 female to male ratio. The majority preferred weekend classes (40.7%) over regular on-campus classes, while 22.2% preferred flexible distance or part-time classes, indicating a preference for week in academic development .

The study reveals that 58.2% of 18-22-year-olds prefer smartphone use in classrooms but struggle with abstract language. Self-regulation abilities and life experiences contribute to success, but specific factors also play a role.

7.4% of people aged 23 to 27 balance their first jobs, families, and studies, focusing on self-regulation abilities for professional progress and community involvement while feeling competent but driven to improve.

29.8% of the 28-32 age group gains competence through steady job and family, which promotes career mobility; nevertheless, returning to school after years might be difficult.

Table 1
Smartphone Users Rating of the Difficulties of Macro-abilities

Academic -abilities	N	Minimum	Maximum	Mean	SD
Self-regulation	108	1.00	5.00	3.57	1.20
Concentration in lecture	108	1.00	5.00	3.15	1.35
Reading and writing	108	1.00	5.00	3.61	1.27
communication	108	1.00	5.00	3.10	1.45
Pay attention	108	1.00	5.00	3.74	1.26
Expressions	108	1.00	5.00	3.79	1.33

Students' evaluation of their abilities proficiency reveals that writing and reading are the most challenging tasks, with mean difficulty ratings of 3.10 and 3.15 respectively,

and standard deviations of 1.45 and 1.35. Writing has a higher mean difficulty rating, suggesting difficulties with structuring, Self-regulation, Pay attention, and effective communication.

Hypotheses

H1. Using smartphones has a positive influence on smartphone addiction.

Self-regulation is organizing and changing thoughts, attitudes, and behaviors to reach personal objectives; yet, failure to do so might result in a smartphone addiction. According to Van Deursen et al. (2015), smartphone addiction is associated with decreased self-regulation. According to studies, pupils with strong self-regulation abilities had lower levels of smartphone addiction, whilst others suggest that self-regulation has no significant influence. Low levels of self-regulation are associated with an increased likelihood of smartphone addiction.

H2. The study indicates that excessive smartphone use negatively impacts students 'academic performance

High self-efficacy scores indicate that a person believes they can execute tasks more effectively. Self-efficacy is a person's opinion of their concentration and clear vision of their goals. According to Garrett and Danziger's 2008 research, those who have strong self-efficacy use the internet more frequently at work. Research, employees who have a high level of self-efficacy also have a greater level of computer self-efficacy and technological competence. The study found an adverse correlation between smartphone addiction and academic achievement in students, emphasizing the importance of language, communication strategies, teaching style, and evaluation methods. Smartphone addiction has a negative impact on students' academic performance since it reduces their attention on academics as they get increasingly attached to their devices. Continuous smartphone usage can have a detrimental influence on students' learning levels, performance, and social ties, since research indicates a link between addiction and student isolation.

Conclusion

The study found that smart usage had a favorable influence on smartphone addiction, whereas self-regulation has a negative impact. General self-efficacy also has a favorable effect, whereas self-regulation has a negative impact. Furthermore, smart phone addiction has a positive but minor effect on kids' academic performance. The study found that smartphones had a favorable and substantial effect on smartphone addiction, comparable to the findings of G¨okc¸earslan et al. 2016. This suggests a link between smartphone addiction and other difficulties. This study recognizes assumptions regarding self-efficacy and suggests that smartphone addiction has a harmful influence on academic success by reducing attention on studies. In addition, overall self-efficacy has a beneficial influence, but self-regulation has a negative effect on cyber doing nothing. The study discovered a link between smartphone addiction and cyber loafing, and it also validated the idea that self-efficacy promotes cyber loafing. The study reveals that, like in previous studies, smartphone addiction has a detrimental influence on academic attainment by lowering attention on studies. It also discovered a link between general self-efficacy and internet loafing, but no relationship between addiction and academic accomplishment. According to the report, academic institutions should implement consistent smartphone usage policies in classrooms and host educational seminars to promote awareness about the harmful impacts of smartphone addiction on students' academic performance.

Recommendations

According to the study, smartphone addiction in class may help students focus better on their schoolwork and other educational activities. The data used in this study came from a single group of university students, indicating that data from several institutions should be included in future studies to look at correlations between different backgrounds or specialties. The direct correlations between independent and dependent variables have been examined in this study. In order to get alternative insights, future study might incorporate mediation or moderation into the research methodology.

References

Abid, U., Khan, T. J., Sheikh, A., Saleem, S., Kayani, H. A., & Habib, M. A. (2020). The relationship between smartphone addiction and depression among university students in Karachi: a cross-sectional study. *International journal of community medicine and public health (Gujarat), 7*(9), 3472-3479.

Ahmed, R. R., Salman, F., Malik, S. A., Streimikiene, D., Soomro, R. H., & Pahi, M. H. (2020). Smartphone use and academic performance of university students: a mediation and moderation analysis. *Sustainability, 12*(1), 439.

AlBoali, R., ALkhateeb, A. F., Alharbi, W., & Saleh, O. (2020). Prevalence of smartphone addiction among university students in Saudi Arabia: A multicenter study. *Annals of Jinnah Sindh Medical University, 6*(1), 10-15.

Eldesokey, S., Gomaa, Z., Sabri, Y., El-Gilany, A.-H., & Elwasify, M. (2021). Smartphone addiction among medical students in Mansoura University. *Egyptian Journal of Psychiatry, 42*(1), 50-56.

Hussain, Z., Mahesar, R., Shah, R., & Memon, N. A. (2017). WhatsApp usage frequency by university students: a case study of Sindh University. *Engineering Science and Technology International Research Journal, 1*(4), 15-20.

Khalil-Ur-Rehman, F., Raju, V., Bekmyrza, T., Farooq, M., Kiani, F. S., & Khalil, N. (2020). Effects of smartphone-based mobile learning in higher education: A systematic review in the context of Pakistan. *Int. J. Adv. Sci. Technol, 29*, 827-838.

Mansoor, J., Muneer, S., & Kanwal, L. (2020). Academic use of smart phone and correlation of its addiction with sleep disturbances among medical students. *National Journal of Health Sciences, 5*(1), 13-18.

Muzaffar, M., Chohdhry, S., & Afzal, N. (2019). Social Media and Political Awareness in Pakistan: A Case Study of Youth, *Pakistan Social Sciences Review*, 3 (II), 1-13

Muzaffar, M., Yaseen. Z., Safdar, S. (2020). Role of Social Media in Political Campaigns in Pakistan: A Case of Study of 2018 Elections*, Journal of Political Studies, 27* (2), 141-151

Saeed, M., Ullah, Z., & Ahmad, I. (2020). A qualitative exploratory study of the factors causing academic stress in undergraduate students in Pakistan. *Liberal Arts and Social Sciences International Journal (LASSIJ), 4*(1), 203-223.

Saleem, M., Owaisi, A. M., & Tufail, M. W. (2015). Internet addiction: It's impact on procrastination of higher learning students in Pakistan. *The Sindh University Journal of Education-SUJE, 44*(2).

Sohail, M., Rauf, H., Mirza, T. I., Ashfaq, R., Aziz, A., & Ibrahim, H. (2020). The problematic internet use among healthcare professionals: Emerging behavioral patterns in social networking sites addiction. *Journal of University Medical & Dental College, 11*(1), 15-22.

Soomro, K. A., Zai, S. A. Y., Nasrullah, & Hina, Q. A. (2019). Investigating the impact of university students' smartphone addiction on their satisfaction with classroom connectedness. *Education and Information Technologies, 24*, 3523-3535.

Tariq, J., Usmani, A., Imran, M., & Faraz, N. (2019). Social And Health Related Effects of Smart Phone Usage Among University Students. *Journal of Bahria University Medical and Dental College, 9*(3), 179-182.