

Strategies to Curb Smartphone Use Dependency among Students in Selected Universities in Kiambu County Kenya

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ABSTRACT

The excessive use of smartphone has been found to affect the well-being of university students. The current study aimed to explore the strategies to curb smartphone use dependency among university students in selected universities in Kiambu County, Kenya. The study adopted embedded mixed method research design. The study population comprised 1,350 students, from which a sample size of 303 participants was derived using the Krejcie and Morgan formula. A simple random sampling technique was employed to select a sample size of 303 participants. The data to curb smartphone use dependency was collected using a questionnaire. In addition, qualitative data to curb smartphone use dependency from the key informants was collected using Interview Guide. The quantitative data was analyzed using descriptive statistics and qualitative data was analyzed using thematic analysis. The results from quantitative data showed students curb smartphone dependency through self-regulation and discipline (83%), avoidance of seductive proposals (75%) and university programs (79.9%). In addition, the theme of counselling and sensitization emerged from the qualitative data as strategies of curbing smartphone use dependency among university students. The study recommends that university administration need to offer workshops and seminars to educate students on smartphone use effect on mental health challenges, coping mechanisms, and available relevant services. Also, the study recommends an environment to be created in which the students feel free to communicate their concerns and difficulties. This can be accomplished through peer support groups or mentoring programs that improve the overall students well-being. University students may need to be encouraged to spend some quality time with their friends and family rather than spending several hours on smartphone screens. Finally, efforts need to be made to encourage face-to-face encounters in the study groups rather than depending primarily on digital communication via the smartphone.

Keywords: Strategies, smartphone use dependency, University students, Kiambu, Kenya

INTRODUCTION

Globally studies have been conducted to examine the strategies to curb smartphone use dependency among students at different levels of education. For instance, in India, Prasad and Sultana (2020) investigated self-control and smartphone overuse among late adolescent students. The sample size of the study was 120 late adolescent students of aged 18-21 years (60 males and 60 females). The findings showed that a majority of the students scored a high mean of 40.07 (SD.5.87) on self-regulations on smartphone use. Also, the findings were unveiled that gender group differences were significantly found in dangerous use ($t=3.91$; $p<.05$), dependent use ($t=4.71$; $p<.05$), and self-control ($t=5.62$; $p<.05$) respectively.

In Malaysia, Hassan et al. (2017) conducted a study on the relationship between smartphone use and academic performance. The study targeted the second-year diploma students of three faculties; namely administrative management ($N = 127$), computer science ($N = 178$) and accounting ($N = 107$) of a public university. The outcome of the study indicated that 57.80% of the students stated that they regulate the time they spend on the smartphone. In a study conducted in Botswana by Faimau et al. (2022), evaluating the influence of gender disparities and the unique learning environment encountered in using smartphones for educational objectives. The study aimed to investigate gender differences and usage patterns of smartphones for academic pursuits, evaluate how the learning environment impacts smartphone utilization for educational

enhancement, and assess the relationship between smartphone usage and academic performance. The researchers contend that the adoption of smartphones for scholarly activities is influenced, in part, by students' familiarity with, and comprehension of the diverse factors shaping their learning environments (Faimau et al., 2022). As such, creating a conducive environment that highlights the importance of balancing smartphone use and psychosocial well-being can play a critical role in eliminating PSU.

A study carried out by Daudi et al. (2023) in Tanzania, restated the value of cognitive therapy in improving university students' psychosocial well-being. According to them, most university students exhibited favourable attitudes towards seeking psychological assistance for the psycho-social issues under examination. Ideally, this concept of seeking assistance presents the significance of creating conducive spaces to help young people have trust that would prevent them from sinking into PSU. From human ecology theory, suitable environments can help to cultivate a better smartphone-use culture. Daudi et al. (2023) emphasize that focus group discussions revealed that students held positive perceptions primarily due to the potential relief from their problems, assurance of confidentiality, and perceived competence of service providers, where a statistically significant contrast in attitude scores was observed between female and male students. Cultivating discipline was found to be critical in articulating better smartphone use practices among university students. According to Kinyua (2022), there is a need for the students should proactively monitor their discipline regarding social media consumption. This would help them to assess the amount of time, or simply put, their screen time. They would then know if they spend excessive time on these platforms, and therefore, as a consequence, enable them to implement personal strategies to regulate the time spent on the smartphone screen.

In addition, study of Kinyua, (2022) anchors on behavioural approach theory, which states that it is the individual who defines the characteristics of their environment to build their discipline. He further contends that university administrations equally have a role to play in enhancing their wellness departments' resources to support students experiencing heightened levels of depression while also undertaking initiatives to promote responsible social media use. Students are encouraged to prioritize offline communication and academic interactions with peers and seek entertainment outside of social media platforms, because these activities, may indeed, contribute positively to sociability and potentially mitigate levels of depression. The same argument had previously been raised by Hilder (2021), in Kenya, who also noted that students should actively monitor their social media usage to determine if it exceeds healthy levels, empowering them to employ personal techniques for managing their time online. She equally stated that it would be profitable and wellness strategy students should prioritise face-to-face communication and academic engagements with peers and seek entertainment offline, to enhance sociability and reduce depression levels.

According to Hilder (2021) universities need to strengthen wellness programmes and resources to address student mental health concerns arising from excessive smartphone use to align with the views expressed by HET and acknowledge the role of the environment in shaping the behaviour of each individual. Encouraging offline communication and engagement reflects also the principles of TAM, emphasizing the importance of individual attitudes and behaviours in technology usage. This approach would put at the forefront the sane interplay that exists between each individual's behaviours interacting with the environmental factors and his or her responsibility towards technology adoption. This approach would assist in addressing the complex situation of PSU and the related psychosocial challenges among students. The current study aimed to explore the strategies to curb smartphone use dependency among university students in selected universities in Kiambu County, Kenya.

METHODOLOGY

The study adopted embedded mixed method research design. The design was suitable for the current study because it aimed to examine strategies to curb smartphone use dependency among university students from a mixed method approach. The study was carried out with three private universities in Kiambu County, located in the central region of Kenya. The study population mainly consisted of 1350 students from selected universities in Kiambu County. Through Krejcie and Morgan (1970) formula and simple random sampling, the study employed a sample size of 303 participants.

In addition, using purposive sampling, 3 university counsellors were selected to participate in the study for qualitative strand. The quantitative data was collected using a questionnaire while qualitative data was collected using Interview Guide. The questionnaire to the participants had three responses including yes; no and not my concern. The qualitative data was collected using interview guide with three counsellor participants. The interview guide had six questions and the three university counsellors were considered appropriate for the study because of their in-depth knowledge and experience in handling university students. The quantitative data collected was analyzed using descriptive statistics and particularly percentages with SPSS. The qualitative data was analyzed using thematic analysis.

RESULTS AND DISCUSSION

The study was set to examine strategies to curb smartphone use dependency among university students in selected universities in Kiambu County, Kenya. The demographic of the participants are presented followed by the findings of the study.

Demographic Characteristics of Student Participants

The study run descriptive statistics to understand the demographic of the participants and the results are presented in table 1.

Table 1: Demographic Characteristics of Student Participants

Gender	Frequency	Percentage
Male	165	58.3%
Female	118	41.7%
Total	283	100.0%
Age		
17-20	33	11.7%
21-25	198	70.0%
25-30	52	18.4%
Total	283	100.0%
Year of Study		
Less than a year	38	13.4%
1-2 years	88	31.1%
3-4 years	157	55.5%
Total	283	100.0%
Total	283	100.0%

The results in Table 1 show that most of the student participants were males 165 (58.3%), while the female participants were 118 (41.7%). In addition, most of the participants 198 (70%) were between the ages of 21-25 years, while the lowest age was 17-20 years, at 33 (11.7%). The year of study revealed that the

participants within 3-4 years in the university were 157 (55.5%), while the participants less than a year in the university was 38 (13.4%). Also, three counselors from the three universities were interviewed for qualitative data with an aim of supporting quantitative findings. The counselors were all females their age ranging between 40 to 50 years.

Strategies for Smartphone Use Dependency among Students in Selected Universities in Kiambu County, Kenya

The study was aimed to explore the strategies to curb smartphone use dependency among students in selected universities in Kiambu County, Kenya. Descriptive statistical analysis was utilized for this analysis. The results are tabulated in Table 2 on the following page.

Table 2: Strategies to Curb Smartphone use Dependency among University students

	Yes	No	Not my concern
I try to regulate the time I spend on the smartphone and discipline myself to select only what is useful to me as a student.	83.0% (n =235)	12.7% (n =36)	4.2% (n =12)
When I am stressed or disturbed because of what I have accessed on the smartphone, I freely seek help from a counsellor or friend.	51.2% (n =145)	44.9% (n =127)	3.9% (n =11)
I avoid seductive proposals that I receive and feel would greatly compromise my happy future.	75.2% (n =210)	17.7% (n = 50)	8.1% (n =23)
I openly discuss the problems that I have realized in my life which are arising from my excessive use or dependence on the smartphone.	37.1% (n =105)	56.9% (n =161)	6.0% (n =17)
I have noticed that I have now become addicted to the smartphone.	51.2% (n =145)	43.8% (n=124)	4.9% (n =14)
I believe my university should have a programme to help students who have smartphone psychosocial problems.	79.9% (n =226)	14.8% (n = 42)	5.3% (n =15)
If such a programme, mentioned in D6 existed in your	76.3% (n =216)	20.1% (n =57)	3.5% (n =10)

university, would you willingly present yourself for this service?			
(Valid N	283		

As observed in Table 2, the students were asked to give their views on strategies to curb smartphone use dependency. The outcomes indicated that; in question one, a majority 83.0% (n =235) of the students stated “Yes” that they try to regulate the time they spend on the smartphone and discipline themselves to select only what is useful to them as students. In the second question, 51.2% (n = 145) of the students were on the “Yes”, that when they were stressed or disturbed because of what they had accessed on the smartphone, they freely sought help from a counsellor or friend, while 3.9% (n =11) of the students were on the opinion that it was not their concern.

In the third item, 75.2% (n =210) of the students stated “Yes”, that they avoided seductive proposals that they received and felt would greatly compromise their happy future and 8.1% (n =23) of the students said it was not their concern. In the fourth question, most (56.9%, n =161) of the students were on the negative opinion that, they openly discussed the problems that they had realized in their life which were arising from their excessive use or dependence on smartphones, and 6.0% (n =17) of the students thought that it was not their concern. Based on the fifth item, 51.2% (n =145) of the students positively stated that they had noticed that they had become addicted to the smartphone, and 4.9% (n =14) of the students held that it was not their concern. With regards to the sixth item, a majority (79.9%, n =226) of the students held that they believed their university should have a program to help students who have smartphone psychosocial problems, and 5.3% (n =15) of the students were on the side that it was not their concern. In the seventh item, 76.3% (n =216) of the students stated “Yes”, that if such a program, mentioned in D6 existed in their university; they would willingly present themselves for the service.

The university counselors identified counseling and sensitization as strategies that can be used to help university students to curb smartphone use dependency. In the interview, one of the counselors asserted:

Counseling them and giving regular talks to students. Orientation of students as first years, and each time they move to the next academic year, they are talked to about the use of Smartphones. Putting posters in the university for students who have been affected by smartphones. No students are to be allowed to walk to an examination room or lecture hall with smartphones (P2, female, 20th September 2024).

Strategies for curtailing the use of smartphones are crucial as they possibly contribute to the possibility of healthy use of smartphones among students. Another counselor shared:

To give talks about the awareness of the negative effects of the over-use of smartphones. Empower the students on self-discipline on when to use smartphones and the appropriate way” (P3, female, 21st September 2024).

The majority (83.0%, n =235) of the students reported that they try to regulate the time they spend on their smartphones and discipline themselves to select only what is useful to them as students. The finding of the current study agreed with the finding of Prasad and Sultana (2020) in India, whose study was focused on self-control and smartphone overuse among students. The findings showed that a majority of the students scored a high mean of 40.07 (SD.5.87) on self-regulation in smartphone use. The finding of this study aligns with the findings by Hassan et al. (2017) in Malaysia, although with a lesser percentage in comparison to the present study of (83.0%). The outcome of the study indicated that 57.80% of the students stated that they regulate the time they spend on the smartphone.

Most (51.2%) of the participants of this study further made it known that they have noticed that they have become addicted to their smartphones. This finding confirms the finding by Zhang et al. (2023) in China. The study established that approximately 60% of university students reported symptoms of smartphone

addiction, characterized by compulsive usage patterns. The finding of the current study also agrees with the finding by Çelik and Ataş (2023) in Turkey, reporting that 53.8% of the students who took part in the study noticed that they had become addicted to smartphones. As pointed out by Kuss and Griffiths (2017), smartphone addiction may be seen as excessive and compulsive use of smartphones that interferes with students' daily lives and responsibilities. It manifests through behaviours such as checking the phone frequently, feeling anxious when separated from it, and neglecting face-to-face interactions. Self-regulation becomes fundamental as one of the possible strategies for smartphone use that may improve the psychosocial well-being among student university students.

Furthermore, the findings of this study was consistent with findings of Baker and Inoue (2021), who asserted that self-regulation is a crucial skill for students, especially in the context of smartphone usage, which has become pervasive in modern education and social interactions. Effective self-regulation can significantly influence a student's academic performance, mental health, and overall discipline. Self-regulation refers to the ability to manage one's emotions, thoughts, and behaviours in different situations, enabling individuals to achieve their goals. Concerning smartphone use, self-regulation plays a vital role in how students manage distractions, allocate their time, and maintain focus on their studies. Baker and Inoue (2021), goes further to suggest that incorporating self-regulation strategies into educational curricula can lead to improved academic outcomes and reduced dependency on smartphones. Self-regulation is a critical factor influencing how students manage their smartphone use and maintain discipline in their academic pursuits. By fostering self-regulation skills through targeted educational interventions, students can enhance their ability to balance their smartphone usage with their academic responsibilities, ultimately leading to better educational outcomes. Continued research in this area will be essential to develop effective strategies for supporting students in the digital age.

CONCLUSION

The study concluded university students employs various strategies to curb smartphone use dependency including self-regulation, discipline, avoidance of seductive proposal, counselling and sensitization. Majority of students reported to curb smartphone use dependency by limiting the amount of time they spend on their smartphones and disciplining themselves by only choosing what is relevant to them as students. In addition, university students openly sought help from a counsellor or friend. Still in the line of strategies others reported to take care of themselves by avoiding enticing proposals that appeared on their smartphones and which they believed would jeopardize their bright future. They also sought help from elders, friends or counsellors. Finally, majority of students agreed that they wished their university to establish a programme to assist students to deal with smartphone use dependency. The study recommends that university administration need to offer workshops and seminars to educate students on smartphone use effect on mental health challenges, coping mechanisms, and available relevant services. Also, the study recommends an environment to be created in which the students feel free to communicate their concerns and difficulties. This can be accomplished through peer support groups or mentoring programs that improve the overall students well-being. University students may need to be encouraged to spend some quality time with their friends and family rather than spending several hours on smartphone screens. Finally, efforts need to be made to encourage face-to-face encounters in the study groups rather than depending primarily on digital communication via the smartphone. Future studies need to include universities from different regions and countries to compare strategies used by students in different environments. Long-term research need to evaluate whether suggested approaches such as counselling, awareness programmes, and self-regulation methods, produce lasting reductions in smartphone dependency.

REFERENCES

1. Baker, R. S., & Inoue, Y. (2021). Leveraging self-regulation in educational technology: A systematic review. *Educational Technology Research and Development*, 69(4), 1901–1920.
2. Çelik, B., & Ataş, A. H. (2023). A correlational study on mobile phone addiction among university students: Prevalence, student characteristics, mobile phone use purposes, and situations. *European Journal of Psychology and Educational Research*, 6(3), 131–145.

3. Daudi, E., Suitbert, E. L., & Amani, J. (2023). University students' attitudes toward seeking psychological help for psycho-social problems in two selected public universities in Tanzania: A mixed methods study. *SAGE Open*, 13(2).
4. Faimau, G., Tihowe, K., & Tlhaolang, O. (2022). Smartphone use, experience of learning environment, and academic performance among university students: A descriptive appraisal. *Advances in Human-Computer Interaction*, 2022, 1–11.
5. Hassan, M. S., Kouser, R., Abbas, S. S., & Azeem, M. (2017). Smartphone use and academic performance of university students: A mediation and moderation analysis. *Sustainability*, 9(6), 917.
6. Hilder, J. K. (2021). Relationship between problematic smartphone use and psychological distress among university students: A case study of Mount Kenya University, Kiambu County [Unpublished doctoral dissertation]. University of Nairobi.
7. Kinyua, S. M. (2022). Relationship between social media use and level of depression among university students in Nairobi County, Kenya [Unpublished master's thesis]. Kenyatta University.
8. Kuss, D. J., & Griffiths, M. D. (2017). Social networking sites and addiction: Ten lessons learned. *International Journal of Environmental Research and Public Health*, 14(3), 311.
9. Prasad, M., & Sultana, P. (2020). Smartphone addiction and associated factors among university students. *International Journal of Community Medicine and Public Health*, 7(4), 1467.