

Relationship of Smartphone Usage and Academic Performance among Undergraduate students – A Systematic Review

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Abstract

Background: Smartphones have become the new normal of 21st century. With growing need to become digitally competent each individual is trying to own one smartphone or a similar gadget.

Methodology: PRISMA guidelines were used to conduct a systematic review of Literature. 98 research articles were reviewed by the team using specific key words. They were scrutinized for their eligibility to get selected for further in-depth review. Articles were selected based on the appropriateness of the titles, abstracts, and results. After a thorough check only 06 reviews were analyzed and paraphrased.

Results: smartphone addiction is the major reason for poor academic performance of the students.

Conclusion: The smartphones must be assessed for their usability and suitability to be used by the students. The phones maybe of a great help to a student if he sees learning opportunities in it.

Keywords: *smartphone usage, academic performance, Undergraduate students*

Introduction

Smartphone addiction has become a problem that needs an immediate attention. This habit initially develops as a liking and later conquers young minds.¹ Present study is an effort to understand relationship of smartphone usage and academic performance among undergraduate students.

Materials & Methods

This review is conducted by reviewing articles using the selection criteria from Pubmed, ScienceDirect, and CINAHL databases from January 2016 to August 2020. The dependent variable in this study is academic performance and independent variable is smart phone usage. Using the online search engine the data was collected. The articles were limited to full text articles. The search was conducted by using key words like smartphone, academic performance and Undergraduate students. PRISMA Guidelines were used for data analysis.

Inclusion criteria:

- Articles from Peer-reviewed journal
- Publications from January 2016 to August 2020
- Cross-sectional and Survey designs were included

The filtered articles were then reviewed by the reviewers for their content especially with the results. The Studies with irrelevant titles, unrelated abstracts and study designs were removed. Data was analyzed and results were reported using a narrative synthesis.

Result

Total 98 articles were identified by the review team using PRISMA Guidelines. A systematic review was conducted to find out the relationship between smartphone usage and academic performance of under graduate students. After a thorough review, six studies were extracted from the irrelevant studies related to smartphone usage and its effect on academic performance. These studies were analyzed using

narrative synthesis and interpreted in the following table.

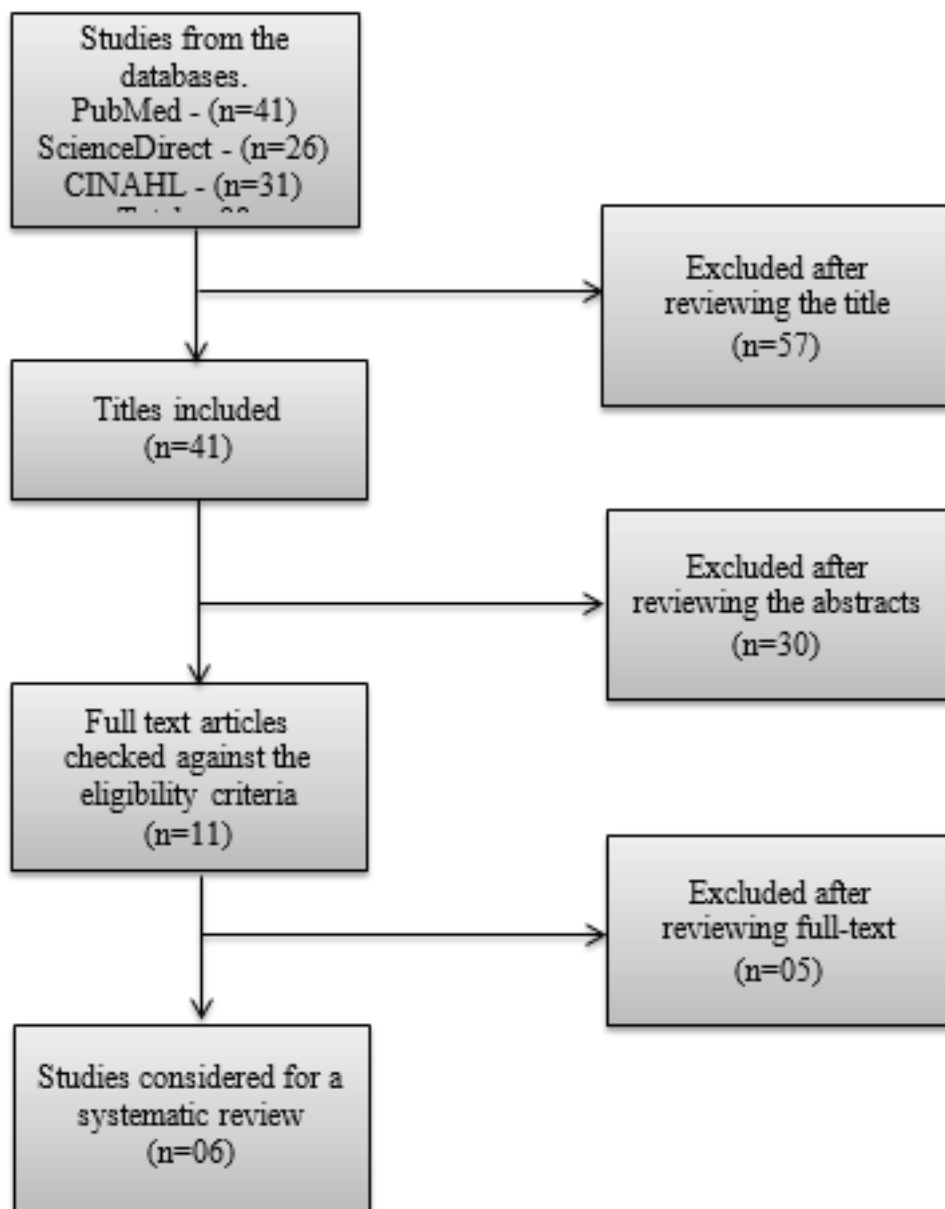


Fig 1: Prisma guidelines

Table 1: Systematic Review on relationship of smartphone usage and academic performance among Undergraduate students

SN	Authors/ Years	Sample size	Outcome
1.	Nayak, J. K. (2018).	429	Usage of smart phone was seen more in females than males. This also affected the academic performance of male students specifically. ²
2.	Felisoni, D. D., & Godoi, A. S. (2018).	100	The academic performance in terms of rank corresponded to every 100 minutes spent on use of smart phones. The students' grades fell down with 6.3 points. ³
3.	Giunchiglia, F., Zeni, M., Gobbi, E., Bignotti, E., & Bison, I. (2018).	72	There was a negative effect of long term usage of social media sites that affected the academic credits of the student. ⁴
4.	Samaha, M., & Hawi, N. S. (2016).	300	Students' usage of smart phones was positively related to perception of stress and negatively related to satisfaction with life and academic performance. ⁵
5.	Ahmed, R. R., Salman, F., Malik, S. A., Streimikiene, D., Soomro, R. H., & Pahi, M. H. (2020).	684	High level addiction of smart phone has strong influence on the students. There are positive as well as diverse effects and must be weighed with the type of features and use of technology to assess the students' performance. ⁶
6.	Grant, J. E., Lust, K., & Chamberlain, S. R. (2019).	31,425	20.1% of the students revealed that they their low grades and alcohol use were only due to smartphone addiction. This also is a major factor for diseases like ADHD, Depression, and anxiety. ⁷

Looking at the above table it is clear that smartphones have affected the students predominantly with their poor academic performances. Their low grades have pushed them to alcohol addiction too. However, there are evidences that smartphones have been a boon to some students to gain additional knowledge on their subject aspects and has improved their grades and perceptions.

Discussion

Similar study was conducted on 62,276 participants in Korea. Smartphone usage was one of the major reasons for conflicts in family & friends, poor academic performance, and suicidal attempts.⁸

Conclusion

Smartphones have been a boon as a result of digitalization and modernization. Everything is available on the click of a button. Hence, this gadget must be handled with great responsibility.

Conflict of Interest – Nil

Source of Finding -Self

Ethical Clearance – ethical clearance was obtained from IRC of Symbiosis College of nursing.

References

1. Yildiz Durak H. Investigation of nomophobia and smartphone addiction predictors among adolescents in Turkey: Demographic variables and academic performance. *The Social Science Journal*. 2019 Dec 1;56(4):492-517.
2. Nayak JK. Relationship among smartphone usage, addiction, academic performance and the moderating role of gender: A study of higher education students in India. *Computers & Education*. 2018 Aug 1;123:164-73.
3. Felisoni DD, Godoi AS. Cell phone usage and academic performance: An experiment. *Computers & Education*. 2018 Feb 1;117:175-87.
4. Giunchiglia F, Zeni M, Gobbi E, Bignotti E, Bison I. Mobile social media usage and academic performance. *Computers in Human Behavior*. 2018 May 1;82:177-85.
5. Samaha M, Hawi NS. Relationships among smartphone addiction, stress, academic performance, and satisfaction with life. *Computers in Human Behavior*. 2016 Apr 1;57:321-5.
6. Ahmed RR, Salman F, Malik SA, Streimikiene D, Soomro RH, Pahi MH. Smartphone use and academic performance of university students: a mediation and moderation analysis. *Sustainability*. 2020 Jan;12(1):439.
7. Grant JE, Lust K, Chamberlain SR. Problematic smartphone use associated with greater alcohol consumption, mental health issues, poorer academic performance, and impulsivity. *Journal of behavioral addictions*. 2019 Jun;8(2):335-42.
8. Kim MH, Min S, Ahn JS, An C, Lee J. Association between high adolescent smartphone use and academic impairment, conflicts with family members or friends, and suicide attempts. *PloS one*. 2019 Jul 15;14(7):e0219831.