



The Correlation Between Screen Time and Aggression Among College Students

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Abstract

In the digital era, the pervasive use of screens from smartphones to laptops has led to concerns regarding their impact on mental health and behavior. This study examines the correlation between screen time (in minutes) and aggression levels among college students. A sample of 84 students (42 males and 42 females) aged 18–25 was surveyed. Aggression was measured using the buss & perry aggression questionnaire (1992), and screen time was self-reported over one month. Statistical analysis using pearson's correlation coefficient (with a significance level of 0.05) revealed a weak negative correlation ($r = -0.084$) between screen time and aggression, which was not statistically significant. Which was not statistically significant at the 0.05 level ($p > 0.05$). The findings indicate that screen time does not directly influence aggression levels among college students.

Keywords: screen time, aggression, buss & perry aggression questionnaire, college students, pearson correlation, digital media.

1. Introduction

The exponential rise in digital device usage has transformed daily life, bringing forth both opportunities and challenges. As digital screens become increasingly central to education, communication, and entertainment, questions have emerged regarding their potential effects on behavior. Aggression, encompassing physical and verbal expressions, as well as underlying emotions like anger and hostility, has been a focal point of debate. While some studies suggest a link between violent media exposure and aggressive behavior (anderson & bushman, 2001), others argue that this association is weak or moderated by other factors (ferguson et al., 2020). This study focuses on college students a demographic that spends significant time on digital devices and faces unique academic and social pressures. By investigating the relationship between screen time and aggression in this population, the study aims to contribute to the broader understanding of how digital exposure influences behavior and to inform policy and intervention strategies. [1]

2. Objectives of the Study

- To assess the screen time usage (in minutes) among college students.
- To measure the level of aggression using the buss & perry aggression questionnaire (1992).
- To examine the correlation between screen time and aggression.
- To analyze gender-based differences in aggression levels. [2]

3. Research Methodology

3.1. Research Design

A quantitative, descriptive correlational research design was adopted to investigate the relationship between screen time and aggression. This design allows for the measurement of variables and the assessment of their interrelationship without inferring causality.

3.2. Sample Selection

The study sample consisted of 84 college students (42 males and 42 females) aged 18 to 25 years, Sampling Technique Selected through stratified random sampling. This

approach ensured balanced gender representation and enhanced the generalizability of the findings within the college population. [3]

4. Research Tools

4.1. Buss & Perry Aggression Questionnaire

The buss & perry aggression questionnaire (1992) is a validated instrument that measures aggression across four dimensions: physical aggression, verbal aggression, anger, and hostility. Each item is rated on a likert scale, with higher scores reflecting greater aggression. [4]

4.2. Screen Time Measurement

Screen time was assessed through self-reported daily logs maintained by participants over a period of one month. This method captured the total time spent on various digital devices.

4.3. Procedure

Participants were briefed on the study's objectives and provided informed consent. They were instructed on maintaining accurate daily records of screen usage. At the conclusion of the data collection period,

participants completed the buss & perry aggression questionnaire in a controlled environment. All data were anonymized prior to analysis. [5]

4.4. Statistical Analysis

Data were analyzed using spss. Pearson's correlation coefficient was computed to assess the relationship between screen time and aggression. Independent samples t-tests were conducted to compare aggression scores across genders. Additionally, simple linear regression was employed to determine if screen time could predict overall aggression levels. A significance level of 0.05 was maintained for all analyses. [6]

5. Statistical Analysis and Results

5.1. Descriptive Statistics

The average daily screen time among participants was 8834 minutes over the month (approximately 4.9 hours per day), with a standard deviation of 3675 minutes. The aggression scores for the dimensions were as follows (mean $\pm$ sd [7]

Table 1 Descriptive Statistics

Statistics							
		Physical aggression	Verbal aggression	Anger	Hostility	Overall aggression	Screen time
N	Valid	84	84	84	84	84	84
	Missing	0	0	0	0	0	0
Mean		25.36	16.89	21.92	26.35	90.51	8833.89
Std. Error of mean		.871	.468	.706	.734	2.357	400.939
Std. Deviation		7.980	4.288	6.470	6.726	21.603	3674.666

5.2. Correlation Analysis

Pearson's correlation analysis provided the following result

Table 2 Descriptive Correlation

Correlations							
		Physical aggression	Verbal aggression	Anger	Hostility	Overall aggression	Screen time
Physical aggression	Pearson correlation		.502	.625	.531	.822	-.039
	Sig. (2-tailed)		.000	.000	.000	.000	.723
	N	84	84	84	84	84	84
Verbal aggression	Pearson correlation	.502		.705	.638	.794	-.111
	Sig. (2-tailed)	.000		.000	.000	.000	.317
	N	84	84	84	84	84	84
Anger	Pearson correlation	.625	.705		.754	.905	-.087
	Sig. (2-tailed)	.000	.000		.000	.000	.431
	N	84	84	84	84	84	84
Hostility	Pearson correlation	.531	.638	.754		.860	-.068
	Sig. (2-tailed)	.000	.000	.000		.000	.537
	N	84	84	84	84	84	84
Overall aggression	Pearson correlation	.822	.794	.905	.860		-.084
	Sig. (2-tailed)	.000	.000	.000	.000		.449
	N	84	84	84	84	84	84
Screen time	Pearson correlation	-.039	-.111	-.087	-.068	-.084	
	Sig. (2-tailed)	.723	.317	.431	.537	.449	
	N	84	84	84	84	84	84

The analysis revealed a weak negative correlation ($r = -0.084$) between screen time and overall aggression, which was not statistically significant at the 0.05 level. [8]

5.3. Gender Based Analysis

Independent samples t-tests showed no significant differences in aggression scores between male and female participants across all dimensions ($p > 0.05$). This suggests that gender does not significantly moderate the relationship between screen time and

aggression.

5.4. Regression Analysis

A simple linear regression was conducted to evaluate the predictive power of screen time on overall aggression scores. The regression model was not statistically significant ($p = 0.223$), indicating that variations in screen time do not reliably predict changes in aggression levels among college students.

5.5. Findings of the Study

- a low negative correlation (-0.084) was found

between screen time and Overall aggression, which is not statistically significant at the 0.05 level ($p > 0.05$). [9]

- there is no significant correlation between screen time and physical aggression, verbal aggression, anger, and hostility.
- no significant gender-based difference was found in aggression levels.

6. Discussion

The primary finding of a weak negative correlation between screen time and aggression suggests that, in this sample, increased digital exposure does not lead to higher levels of aggressive behavior. Several explanations may account for this outcome:

- **Content Type:** the nature of the content consumed (educational versus violent) likely plays a critical role in shaping behavioral outcomes. [11]
- **Individual Differences:** variations in personality traits, resilience, and social support may buffer the effects of screen time on aggression. [12]
- **Cultural Influences:** the cultural context of indian college students, characterized by high academic pressures and distinct social dynamics, may influence both screen habits and behavioral responses. While early studies (anderson & bushman, 2001) indicated a strong link between media violence and aggression, more recent research (ferguson et al., 2020; gentile et al., 2011) has questioned the strength and consistency of this relationship. Our findings align with the latter, suggesting that screen time, in isolation, is not a significant predictor of aggressive behavior. This is consistent with the argument that the qualitative aspects of media exposure such as the nature of the content and the context of consumption are more critical determinants of behavior.

The results of this study have several practical implications:

- **Digital Literacy:** educational institutions should focus on promoting digital literacy, ensuring that students are equipped to critically evaluate and manage their media

consumption.

- **Content Regulation:** rather than solely limiting screen time, interventions should consider the type of content that students engage with. [13-14]
- **Holistic Well-Being Programs:** integrative programs that address mental health, social support, and stress management could prove more effective in mitigating aggressive behavior.

Conclusion

This study investigated the correlation between screen time and aggression among college students, revealing a weak negative correlation that was not statistically significant. Future studies should focus on the impact of violent content, gaming addiction, and social media influence on aggression. Educational institutions should promote digital wellness and mental health awareness programs to prevent aggressive behavior among youth.

References

- [1]. Anderson, c. A., & bushman, b. J. (2001). Effects of violent video games on aggressive behavior. *Psychological science*, 12(5), 353-359.
- [2]. Buss, a. H., & perry, m. (1992). The aggression questionnaire. *Journal of personality and social psychology*, 63(3), 452-459.
- [3]. Ferguson, c. J., olson, c. K., kutner, l. A., & warner, d. E. (2020). Media violence effects. *Annual review of psychology*, 71, 347-372.
- [4]. Gentile, d. A., swing, e. L., lim, c. G., & khoo, a. (2011). Video game playing and aggression in adolescents. *Developmental psychology*, 47(2), 304-310.
- [5]. Rideout, v. J., foehr, u. G., & roberts, d. F. (2010). Generation m2: media in the lives of 8- to 18-year-olds. Kaiser family foundation report.
- [6]. Keikha, a., et al. (2020). Screen time activities and aggressive behaviors among children and adolescents: a systematic review. *International journal of preventive medicine*, 11, 59.
- [7]. Zhu, x., et al. (2023). Trajectories of screen



time across adolescence and their associations with psychosocial adjustment. *Journal of youth and adolescence*, 52, 1234–1250.

- [8]. Joseph, g. V., et al. (2021). The impact of screen time and mobile dependency on adolescent well-being: a review. *Journal of education and practice*, 12(10), 1-8.
- [9]. Informed futures. (2020). Screen time: the effects on children's emotional, social, and cognitive development. *Informedfutures.org* report.
- [10]. Zenodo. (2023). Screens steal time: how excessive screen use impacts the lives of adolescents. *Zenodo repository*.
- [11]. BMC psychology. (2023). The associations between screen time and mental health in adolescents: a systematic review. *BMC psychology*, 11, 112.
- [12]. International journal of current research and review. (2022). Time spent on digital screens and its impact on health and academic performance among students. *Ijcurr*, 10(2), 89-96.
- [13]. Sharma, r. (2022). Screen time and aggression: a comparative study among youth. *Journal of psychological studies*, 38(3), 215-230.
- [14]. Chakraborty, k., & basu, s. (2023). Impact of digital screen time on mental health of college students: an indian perspective. *International journal of social science and humanities*, 45(2), 112-126.