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A STUDY OF SMARTPHONE ADDICTION IN RELATION TO SELF-ESTEEM, SOCIOECONOMIC STATUS, AND GENDER AMONG NIGERIAN UNDERGRADUATES

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Abstract

This study explored the relationships between self-esteem, socioeconomic status, gender, and smartphone addiction among university undergraduates. A descriptive correlational survey design and a multi-stage sampling method were utilised. The sample consisted of 300 undergraduate students. Data collection employed validated instruments, including the Smartphone Addiction Scale (α = 0.79), the General Self-Esteem Scale (α = 0.90), and the Socioeconomic Status Scale (α = 0.87). Findings revealed that male students (mean = 46.4109) exhibited higher levels of smartphone addiction compared to female students (mean = 41.0621). Significant correlations were found between smartphone addiction and self-esteem ($r = .981$; $p < .05$), socioeconomic status ($r = .245$; $p < .05$), and gender ($r = .071$; $p < .05$). Among these variables, socioeconomic status ($\beta = .235$; $t = 3.337$; $p < .05$) was the strongest predictor of smartphone addiction, followed by self-esteem ($\beta = .189$; $t = 2.843$; $p < .05$) and gender ($\beta = -.267$; $t = -4.014$; $p < .05$). The results emphasised the importance of addressing smartphone addiction, especially for undergraduates, as technology continues to advance and reliance on digital devices grows in society.

Keywords: Smartphone addiction, Self-esteem, Socioeconomic status, Gender difference, Undergraduates.

1. Introduction

The rapid advancements in innovation and information dissemination have significantly impacted young people's modern lifestyle and social dynamics, particularly those attending higher education institutions. The smartphone is a notable technological marvel in this context (Sitompul & Daulay, 2023). Concerns regarding smartphone addiction have been raised by the quick development of technology, especially the pervasive use of smartphones among people, including University students. Addiction to smartphones has been linked to several detrimental outcomes, including mental health problems, diminished social interactions, and academic decline. Students at the undergraduate level should be concerned about the prevalence of behavioural problems caused by smartphone use. As a result of smartphone addiction, students' focus has gradually shifted from textbooks to smartphone applications. Along with this change, they have also led to increased cravings and behavioural issues that were previously rare in students attending traditional schools (Arpaci & Kocadag, 2020).

According to Priori (2024), Nigerian smartphone users spend about 4 hours and 22 minutes on their devices daily. There is a chance that widespread smartphone use will lead to the development of this addictive behaviour. There is a chance that widespread smartphone use will lead to the development of this addictive behaviour. Smartphone use has evolved beyond its conventionally upscale connotations. In addition to being a luxury, smartphones are now proper tools for social networking, entertainment, information, and many other purposes. Researchers are still interested in young people's use of smartphones. Numerous surveys and studies on youth smartphone use (Barashadi, 2016; Ansari et al., 2017) have shown that most participants have developed a smartphone addiction and view smartphones as essential to survival.

The effects of smartphone addiction on college students and, more generally, young people cannot be understated. Consider a situation in which students neglect their academic obligations because they are always absorbed by their smartphones, checking social media updates and participating in online activities. Their academic performance declines, and they may lose sight of their educational objectives (Statista, 2023). Additionally, an addiction to smartphones can seriously harm relationships with others. Imagine a scenario in

which a group of friends from college congregate for a social event. Still, rather than conversing in person and spending time together, they are absorbed in their smartphones, playing games, or browsing social media feeds. The quality of personal connections is lowered, and this continual distraction impedes meaningful social interactions.

Since smartphone addiction has a negative impact on mental health, Sitompul and Daulay (2023) pointed out that students who are cut off from their devices may feel more stressed and anxious, which results in a continual need for connection and assurance. Their general well-being and mental toughness may deteriorate, impairing their ability to handle academic challenges and manage the rigours of college life. Smartphones have many advantages, such as expanding knowledge, encouraging creativity, and improving patience, but when abused, they can also have adverse effects. People who abuse smartphones frequently exhibit traits like selfishness, arrogance, emotional instability, pessimism, and social disengagement, which can negatively impact their relationships with others and their psychological health (Aswandi & Lismayanti, 2019). As a result, the effects of smartphone addiction go beyond simple reliance on technology and affect many aspects of people's lives and social interactions. Smartphone addiction is influenced by a range of factors, including peer pressure, socioeconomic background, gender disparities, and levels of self-esteem. Consequently, this study examines the association between smartphone addiction and variables such as gender, socioeconomic status, and self-esteem among university undergraduates.

2. Self-esteem and Smartphone Addiction

Self-esteem is reflected in one's self-perceptions and emotional responses to them. Research shows that numerous physical, psychological, and social consequences that may last into adulthood have been linked to low self-esteem. Food disorders, obesity, aggressive conduct, anxiety, depression, suicide, early sexual initiation, substance abuse, and smartphone addiction are some of these outcomes (Jasso et al., 2018). To develop screening tools and interventions that educators, counsellors, and psychologists can use with teenagers, it is essential to identify modifiable risk factors for low self-esteem, such as smartphone addiction. By identifying and understanding the role that self-esteem plays in smartphone addiction, it may be possible to prevent smartphone addiction and its adverse effects, thereby safeguarding the social and psychological well-being of adolescents. An attitude that implies you accept, value, and believe in yourself is known as self-esteem. It shows up in your feelings, ideas, and actions. Being comfortable with your positive and negative characteristics is made possible by acceptance (Clancy et al., 2019; Omoponle & Veronica, 2023). Treating oneself with the same decency as one would show to someone who deserves respect is the essence of self-respect. According to Adewuyi (2021), having self-esteem means thinking you deserve all the good things in life. It also shows how confident you are in making choices and acting in ways that will enhance your life.

Smartphone addiction was more common among university students who had low self-esteem, and those who did so expressed less emotional self-worth than those who had high self-esteem (Omoponle & Veronica, 2023). Studies have also examined risky or problematic behaviour, including traits such as self-worth. Low self-esteem has been associated with risky sexual behaviour in adults and adolescents (Omoponle & Olanrewaju, 2019; Benotsch et al., 2013). Research has indicated that an individual's perceptions of phone addiction and cybercrime are influenced by their level of self-esteem. Young adults who struggle with smartphone addiction may have self-worth issues that make them more likely to take risks and suffer long-term consequences as a result. An adolescent study found no correlation between self-esteem and sharing sexual content via a mobile device.

Socioeconomic Status and Smartphone Addiction

Research on smartphone addiction has shown that people from high and low socioeconomic backgrounds differ significantly in percentage. Socioeconomic status levels often describe the three possible positions an individual or family may hold: low, middle, and high. One or more indicators, such as income, educational attainment, and employment status, can be used to classify a family or individual into socioeconomic groups (Gupta, 2017). It has been determined that behavioural problems, such as smartphone addiction, are significantly predicted by lower parental income and educational attainment. Furthermore, continuous exposure to their parents' larger social networks, which may include neighbours, teachers, and coworkers, often helps students from higher socioeconomic backgrounds (Lazarus et al., 2022; Omoponle & Veronica, 2023). For instance, students with close social ties with their parents and teachers are more likely to use the internet regularly. On the other hand, people might rely more on peer relationships that don't provide long-term developmental benefits in situations where families are unemployed, and teachers lack access to external networks. People from higher socioeconomic backgrounds are better able to make wise decisions, which lessens their likelihood of becoming addicted to smartphones.

Maras et al. (2024) examined the potential link between smartphone addiction and socioeconomic status. They found that low socioeconomic status was strongly associated with smartphone addiction. Similarly, a thorough investigation of cybercrime by Barkoukis et al. (2015) has consistently shown a strong correlation between low socioeconomic status and smartphone addiction among college students. In a quantitative study by Wright (2023) with 430 randomly selected second-year university students, the researcher found a significant correlation between socioeconomic status and smartphone addiction. Addiction to smartphones and a lack of commitment to other social activities are common among those from lower socioeconomic backgrounds, according to Olayemi (2014). The most frequently reported finding in the literature is that underachievers have lower socioeconomic status, which may encourage them to engage in online activities, such as becoming addicted to smartphones.

Gender Difference in Smartphone Addiction

Gender differences in antisocial behaviour have been found in a significant amount of technology-based research, and the results consistently demonstrate that women are more likely than men to suffer from addiction (e.g., Wang et al., 2019). Research indicates that there are differences between men and women in their inclination to participate in different types of criminal and deviant behaviour. Men are more likely to commit crimes like gang membership, firearm-related offences, vandalism, fraud, and forgery, according to Aransiola and Asindemade (2011). Research indicates that men exhibit higher rates of phone addiction compared to women (Christopher, 2016). However, findings regarding gender differences in aggressive behaviours have been inconsistent, challenging the notion that women are more prone to relational and verbal aggression. While some studies suggest that women are more likely to engage in relational forms of addiction, more recent evidence points to minimal or no significant gender differences in this area (Liu, 2019). Also, men are reported to participate more frequently in cyber-related activities such as digital piracy (Hemphill et al., 2016; Muraina & Omoponle, 2017). For instance, Hemphill et al. (2016) observed that being male significantly increased the likelihood of phone and software use among 392 college students. Nonetheless, other studies that have not found significant gender effects contribute to the ongoing debate and mixed conclusions in the literature.

Gender generally refers to traits and behaviours appropriate for men and women in a particular culture (Ybarra & Mitchell, 2014). According to Villacampa (2017), most research indicates that girls have a stronger bond with their parents, which is expected to have consumed a significant amount of their time and energy. Despite this, phone addiction is still more prevalent among female adolescents than male adolescents. Gender and feminist scholars have noted that young women face distinct challenges compared to young men in terms of gender, phone use, and development (Gao et al., 2025; Wood et al., 2015). Girls are in a difficult position because, unlike boys, they are more likely to be influenced by their peers and society, and they may also face social punishment for their addiction (Salter, 2016). For example, girls, not boys, felt strongly condemned for using and refraining from using a smartphone, according to a qualitative study of teenagers (Madigan et al., 2018). In addition, University girls might be more susceptible to smartphone addiction. According to Strassberg et al. (2017), girls and young women are more likely than their male counterparts to report adverse psychological outcomes, like a higher incidence of depression. This suggests that all of this could have adverse psychological effects. Girls typically experience the most severe consequences of this phenomenon, including damage to their reputations (Al-harthiy et al., 2025; Wood et al., 2015).

Objectives

The general purpose of this study is to examine the influence of self-esteem, socioeconomic status, and gender on university undergraduates' smartphone addiction.

Hypothesis

Ho1: There is no significant difference in the smartphone addiction of undergraduates based on gender.

Research Questions

- What pattern of relationship exists between self-esteem, socioeconomic status, gender, and university undergraduates' smartphone addiction?
- What is the joint contribution of self-esteem, socioeconomic status, and gender to university undergraduates' smartphone addiction?
- What is the relative effect of self-esteem, socioeconomic status, and gender on university undergraduates' smartphone addiction?

3. Method

For this study, a descriptive survey research design was adopted. The study's target population is all students enrolled in all public universities across Oyo State. Notably, Oyo State hosts four (4) public universities. A multi-

stage sampling technique was utilised to select participants from the target population. Three postsecondary institutions were randomly selected in the first phase. A total sample size of 300 participants was then obtained by randomly selecting 100 undergraduate students from each institution. Both male and female students were included in the sample, and every effort was made to ensure equal representation of both genders. Part-time, postgraduate, and distance learning students were excluded from the sample; only full-time undergraduate students enrolled in regular academic programs during the study period were included.

4. Instrumentation

For this study, a structured questionnaire was the primary data collection tool. Sections A and B comprised the questionnaire. Participants were asked to provide demographic data in Section A, such as family type, parental background, gender, age range, and institution name. The primary goal of Section B was to gather answers about the study's main variables. Educational psychologists and assessment specialists examined the tool to guarantee its content validity. After validation, a pilot study was conducted with participants who weren't part of the main sample. The instrument's reliability was evaluated through this initial testing. The Spearman-Brown prediction formula was used to estimate the reliability coefficients, and the split-half method was employed.

The resulting reliability indices were as follows: Smartphone Addiction Scale (α = .79), General Self-Esteem Scale (α = .90), and Socioeconomic Status Scale (α = .87), indicating acceptable to high internal consistency. Before data collection, ethical clearance was obtained from the appropriate authorities at the selected institutions. Informed consent was also secured from all participants, and ethical guidelines were strictly followed throughout the research process. Participants were assured of the confidentiality and anonymity of their responses to minimise response bias. Data collection was conducted by the researchers, with the assistance of four trained research assistants.

5. Data Analysis

Descriptive and inferential statistical techniques were used to analyse the questionnaire data using the Statistical Package for the Social Sciences (SPSS) Version 24. A summary of the participants' demographic traits was provided using descriptive statistics, such as frequency counts and percentages. Pearson Product-Moment Correlation (PPMC) and Multiple Regression Analysis were used in inferential analyses to test the study's hypotheses and examine the relationships between variables. The significance level of 0.05 was used for all statistical tests. Critical statistical assumptions were evaluated before conducting the inferential analyses. Normality, linearity, homoscedasticity, and the lack of multicollinearity were among them. Skewness and kurtosis values, along with visual examinations of histograms and Q-Q plots, were used to assess normality. Scatterplots of residuals were used to verify linearity and homoscedasticity, and tolerance values and the Variance Inflation Factor (VIF) were used to evaluate multicollinearity. The robustness of the statistical analyses was ensured by meeting all assumptions within reasonable bounds.

6. Findings

Table 1: Age range distribution of respondents

Age	Frequency	Percentage
Between 17 and 22 Years	176	58.67
Above 22 Years	124	41.33
Total	**300**	**100.0**

Table 1 shows that 58.67% of respondents were aged 17-22, while 41.33% were aged 23 or older.

Table 2: Respondents' distribution by gender

Sex	Frequency	Percentage
Male	168	56.0
Female	132	44.0
Total	**300**	**100.0**

Table 2 indicates that 56.0% of the respondents were male, whereas 44.0% were female.

Hypothesis Testing

H_{o1}: There is no significant difference in smartphone addiction of undergraduates based on gender.

Table 3: T-test statistics showing the difference in smartphone addiction of undergraduates based on gender

Students Gender	No	Mean	S.D	df	t-value	Sig	Decision
Male	168	46.4109	32.45	298	1.153	0.029	Rejected
Female	132	41.0621	28.07				

As shown in Table 3, the null hypothesis is rejected, indicating that gender significantly influences smartphone addiction among undergraduates ($t(298) = 1.079$, $p < .005$). Considering the mean scores for males ($M = 46.41$) and females ($M = 41.06$), it can be inferred that male undergraduates exhibit higher levels of smartphone addiction compared to their female counterparts. The significant difference in smartphone addiction scores between male and female undergraduates suggests that gender plays a meaningful role in the extent of smartphone use and potential addiction. The higher mean score among males may reflect differences in usage patterns, motivations, or social factors that influence smartphone engagement. Possible explanations for this gender disparity include greater involvement of males in gaming, online social networking, or other smartphone-based activities that may increase the risk of addiction. Additionally, cultural and societal norms could influence the acceptability or encouragement of smartphone use differently across genders.

Answering Research Questions

Research question 1: What pattern of relationship exists between self-esteem, socioeconomic status, gender, and university undergraduates' smartphone addiction

Table 4: Descriptive and correlation matrix showing the relationship between self-esteem, socioeconomic status, gender, and university undergraduates' smartphone addiction.

Variables	N	Mean	SD	1	2	3	4
Smartphone addiction	300	45.71	31.82	1.00			
Self-esteem	300	43.10	31.73	.981**	1.00		
Socioeconomic status	300	29.25	6.97	.245**	.140**	1.00	
Gender	300	1.42	.48	.071	.044	.037	1.00

**Correlation is significant at the 0.01 level (2-tailed)

Table 4 presents the descriptive statistics and Pearson correlation coefficients for the study variables. The results indicate a strong positive correlation between smartphone addiction and self-esteem among university undergraduates ($r = .981$, $p < .05$). Additionally, smartphone addiction is significantly correlated with socioeconomic status ($r = .245$, $p < .05$) and gender ($r = .071$, $p < .05$). Significant correlations were also observed among the independent variables. The correlations presented in Table 4 reveal essential relationships among the study variables. Notably, smartphone addiction shows a significant positive association with self-esteem ($r = .981$, $p < .05$), suggesting that as self-esteem levels vary, smartphone addiction changes in a nearly proportional manner among university undergraduates. This strong relationship highlights the critical role that self-esteem may play in influencing or reflecting addictive smartphone behaviours.

Furthermore, a moderate positive correlation exists between smartphone addiction and socioeconomic status ($r = .245$, $p < .05$), indicating that students' economic and social backgrounds have a significant, albeit less pronounced, impact on their likelihood of developing smartphone addiction. This finding is consistent with prior research suggesting that socioeconomic factors contribute to behavioural outcomes, possibly through access to technology or social influences. The correlation between smartphone addiction and gender, while statistically significant ($r = .071$, $p < .05$), implies that gender differences exist but may not be an essential determinant in predicting smartphone addiction on their own. This aligns with previous mixed findings in the literature, which suggest that gender effects are minor or context-dependent. Additionally, the significant intercorrelations among the independent variables underscore the complex interplay between gender, socioeconomic status, and self-esteem. These interrelationships suggest that the effect of each variable on smartphone addiction should be interpreted within a broader context, possibly involving mediating or moderating effects.

Research question 2: What is the joint contribution of self-esteem, socioeconomic status, and gender to university undergraduates' smartphone addiction?

Table 5: Multiple Regression Summary: Composite Contributions of Independent Variables to Smartphone Addiction

Analysis of variance

	Sum of Squares (SS)	DF	Mean Square	F
Regression	137547.582	3	101549.651	2301.726
Residual	362590.709	296	43.298	
Total	460674.128	299		

[a] R = .978

[b] R^2 = .956

[c] Adjusted R^2 = .954

[d] Standard error of estimate = 6.63749

Table 5 presents the combined effect of self-esteem, socioeconomic status, and gender on smartphone addiction among university undergraduates. The results indicate a high multiple correlation coefficient ($R = 0.978$, $p < .05$) and an adjusted coefficient of determination ($R^2 = 0.954$), suggesting that approximately 95.4% of the variance in smartphone addiction can be explained by the collective influence of these independent variables. The remaining 4.6% of the variance may be attributed to other factors not included in the model and random error. Additionally, the analysis of variance (ANOVA) for the regression model was significant, $F(3, 298) = 301.726$, $p < .05$, indicating that the model provides a good fit for the data. The table shows the regression coefficients for each independent variable, illustrating their unique contributions to predicting smartphone addiction among university undergraduates. Self-esteem emerged as a strong and significant predictor, indicating that variations in self-esteem are closely associated with changes in smartphone addiction levels. This suggests that students with lower or higher self-esteem may be more prone to addictive smartphone behaviours, depending on the direction of the coefficient.

Also, socioeconomic status significantly predicted smartphone addiction, though its effect size was smaller compared to self-esteem. This finding implies that students' economic and social backgrounds play a meaningful role in their smartphone use patterns, potentially due to differences in access or social influences. While gender was a significant but weaker predictor, indicating that while gender differences exist in smartphone addiction, they account for a relatively smaller proportion of the variance compared to the other variables

Research question 3: What is the relative effect of self-esteem, socioeconomic status, and gender on university undergraduates' smartphone addiction?

Table 6: Summary of the Relative Contribution of Independent variables to smartphone addiction

	Unstandardised coefficients	Standardised coefficients		t	p
Model	**B**	**Standard error**	**Beta**		
Constant	30.294	1.741		17.399	.000
Self-esteem	.167	.059	.189	2.843	.004
Socioeconomic status	.065	.020	.235	3.337	.001
Gender	-.063	.016	-.267	-4.014	.000

Table 6 demonstrates that the independent variables significantly predicted smartphone addiction among university undergraduates. Among these, socioeconomic status made the most considerable unique contribution to the prediction ($\beta = .235$, $t = 3.337$, $p < .05$). Self-esteem also significantly predicted smartphone addiction ($\beta = .189$, $t = 2.843$, $p < .05$), followed by gender, which showed a significant negative effect ($\beta = -.267$, $t = -4.014$, $p < .05$). These findings suggest that while all three variables are significant predictors, socioeconomic status has the strongest positive association, self-esteem has a moderate positive effect, and gender is negatively associated with smartphone addiction. Collectively, these findings highlight the multifaceted nature of smartphone addiction, influenced by both socioeconomic and psychological factors as well as demographic characteristics. They also emphasise the importance of considering the broader social and individual context when addressing technology-related behavioural issues in university populations. Future research should explore additional variables, such as personality traits, peer influence, and cultural factors, and use longitudinal designs to better understand causal relationships.

7. Discussion

The findings from the first hypothesis showed that smartphone addiction among undergraduates was influenced by gender. Given the mean scores, it could be assumed that male undergraduates showed more smartphone addictions than their female counterparts. This is in line with earlier research that looked at the prevalence of smartphone addiction in both men and women, with varying degrees of success. There was no discernible gender difference in smartphone addiction prevalence, according to a cross-sectional study conducted among Chinese medical college students. The prevalence was 29.8% for males and 30.3% for females (Yoon et al., 2021). However, research conducted in Nigeria revealed no discernible gender influence on smartphone

addiction, indicating that psychological traits such as self-esteem, loneliness, and extraversion are more important than gender (Popoola et al., 2026; Onyemah, 2022).

Furthermore, this result contradicts the findings of Su et al. (2019), who reported that gender differences exist in smartphone usage patterns. For instance, men use smartphones to play games, watch videos, and listen to music, whereas women are more likely to send texts, answer calls, or use social media apps. He noted that women are more likely than men to become addicted to smartphones, which supports his claim that there is a significant gender gap in the severity of smartphone addiction. Due to the growing popularity of social media apps, women are more likely to use the Internet and spend less time interacting with people in person.

The results showed a significant relationship between university undergraduates' smartphone addiction and their gender, socioeconomic status, and sense of self. The study discovered that self-esteem and socioeconomic status had a strong and positive correlation with smartphone addictions, while gender had a weak and positive correlation. This result is consistent with Cooper et al. (2017) and Diotaiuti et al. (2021), who found that people with lower self-esteem are more likely than others to become addicted to smartphones. On the other hand, researchers such as Chen et al. (2023) have offered different viewpoints, arguing that people with higher self-esteem also tend to use smartphones more frequently and become addicted to them. Additionally, according to Kuyumcu's (2023) perspective, people with lower self-esteem may be less likely to be addicted to smartphones because they have a less favourable view of themselves and thus need less protection for their image. Because they are more likely to have more in-person relationships, people with high self-esteem may be less likely to develop an internet addiction. As a result, they might have stronger support systems and social ties in real life. They might feel more content and confident in their relationships, lessening their need to use the Internet excessively to find approval or social interaction.

Furthermore, it might be because people with a high sense of self-worth tend to be more confident and have a more positive view of themselves. They might be less likely to use social media excessively or engage in other compulsive online behaviours because they are less likely to compare themselves to others or seek online approval (Jimoh et al., 2023; Park, 2019). Furthermore, it was found that undergraduate students' socioeconomic status has a significant impact on their smartphone addiction. This makes sense when considering how a person's social standing affects their desire for and needs for material goods. Students from low-income backgrounds might be more inclined to concentrate on other things because they lack the financial means to stay relevant among their peers. The results, which showed a weak gender difference, imply that gender has no bearing on smartphone addiction. The results are consistent with those of Yoon et al. (2021) and Adewuyi et al. (2025, who dfound

According to research on smartphone addiction and students' perceptions of the support they receive from social relationships, females statistically reported higher levels of social support than males. Still, there is no discernible gender difference in smartphone addiction levels. Smartphone addiction, according to Bisen and Deshpande (2016), is more than just excessive smartphone use; it also has an impact on the mental and physical health of people who experience anxiety, depression, or poor sleep quality. In summary, this study presents three perspectives on gender and smartphone addiction: (1) Addiction is more common in women; (2) addiction is more common in men; and (3) there is no significant correlation between gender and addiction. According to Whittaker et al. (2015), girls and boys differ in their preferences for online services and in how they use digital media. Girls spend more time on computers in early adolescence than boys, but this trend reverses in late adolescence (Ukpabi & Ajiye, 2025; Van et al., 2019).

Recommendations

Based on the findings so far, the following recommendations were made:

- It is recommended that students improve their self-esteem by working on their sense of self to reduce the risk of smartphone addiction among university undergraduates.
- It is recommended that institutions of higher learning provide new students with orientation programs. This type of training at the beginning or end of school is crucial because it equips youth with the skills they need to thrive in and out of the classroom and helps them avoid smartphone addiction.
- Policies that enforce sanctions for violators and increase public awareness of smartphone addiction are also essential. There must be policies in place to prevent and lessen smartphone addiction.
- Educational administrators can encourage social sanctity by establishing an environment that upholds morals and sanctity. Administrators can plan educational programs for students. They can also offer incentives at the end of the course, such as a prize for the university's best-behaved and most gregarious students.

8. Conclusions

The problem of smartphone addiction among university students is alarming. Given the detrimental effects of addiction, it's critical to look into the causes of university undergraduates' smartphone addiction in more detail. Fighting smartphone addiction is an investment worth making as society becomes more and more reliant on electronic devices and technologies, especially since people with an addiction often face severe emotional, psychological, and financial difficulties. The current study examines the underlying mechanisms and the connections between university undergraduates' smartphone addiction and their gender, socioeconomic status, and self-esteem. When taken as a whole, the variables among first-year college students were significantly correlated. Self-esteem and socioeconomic status had a relative impact on the prediction of smartphone addiction, and boys were more likely than girls to be addicted to smartphones. The information we have on smartphone addiction among college students has increased as a result of this study, which is an essential problem in our society that requires attention. This study shows that changing the trajectory of smartphone addiction and its consequences requires a significant psychological change, especially when the interventions use the study's independent variables (socioeconomic status, gender differences, and self-esteem). Various strategies should be created to address smartphone addiction from different perspectives.

Limitations of the Study

The current findings highlight the significance of addressing smartphone addiction, even considering the study's limitations. The following limitations were specifically noted:

i. First, the measurement techniques used in this study were limited to self-report. Due to uncontrollable circumstances, standard method bias, such as an individual's unquantifiable implicit bias, may unavoidably creep in when self-reporting is used.

ii. The generalizability of the results should be used cautiously. In addition to accounting for gender differences, the university undergraduates in our study came from a range of family socioeconomic status backgrounds at the sample source level. On the other hand, cultural context and ethnicity can impact resistance to peer pressure. We hope to repeat our study with different cultural samples to validate our findings.

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