



Cover Page



A STUDY ON THE IMPACT OF MOBILE PHONE ADDICTION AMONG SECONDARY SCHOOL STUDENTS IN GUNTUR DISTRICT OF ANDHRA PRADESH

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Abstract

This study investigates the impact of mobile phone addiction among secondary school students in Guntur district of Andhra Pradesh. With the increasing accessibility of smartphones and internet connectivity, mobile phone usage has become widespread among adolescents, leading to concerns about excessive dependence and its consequences. The study aims to assess the level of mobile phone addiction and examine its influence on students' academic performance, attention, social behavior, and psychological well-being. A sample of secondary school students was selected using appropriate sampling techniques, and standardized tools were employed to collect data. The Mobile Phone Addiction Scale (2018), developed by Dr. Madhu Gupta and Bindiya Lakshmi, was used for the study. The scale includes six dimensions, namely: (i) Compulsion, (ii) Forgetfulness, (iii) Lack of Attention, (iv) Depression and Anxiety, (v) Disturbed Hunger/Sleep, and (vi) Social Withdrawal. The findings reveal that a majority of students exhibit an average to high level of mobile phone addiction, which significantly affects their concentration, learning outcomes, and daily routines. The study highlights the need for awareness among students, parents, and teachers regarding responsible mobile phone usage and suggests the implementation of effective strategies to minimize its negative impact while promoting its educational benefits.

Keywords: Impact, Mobile Phone Addiction, Secondary School Students

Introduction

Mobile phone addiction has become a significant concern among secondary school students in Guntur district of Andhra Pradesh due to the rapid increase in smartphone usage and internet accessibility. While mobile phones serve as valuable tools for communication, learning, and information access, their excessive use has led to negative consequences on students' academic performance, concentration, and overall well-being. Many students spend prolonged hours on social media, gaming, and online activities, which can result in reduced attention span, sleep disturbances, and increased levels of stress and anxiety. The impact is observed across various demographic groups, indicating that mobile phone addiction is a widespread issue rather than being limited to a particular category. Therefore, it is essential to create awareness among students, parents, and teachers and to promote balanced and responsible use of mobile phones to ensure healthy academic and personal development.

Need of the Study

In recent years, mobile phones have become an integral part of adolescents' daily lives, especially among secondary school students. With the rapid expansion of internet connectivity and affordable smartphones, even semi-urban and rural regions like Guntur district in Andhra Pradesh have witnessed a significant rise in mobile phone usage among students. While mobile phones serve as essential tools for communication, online learning, and information access, their excessive and uncontrolled use has led to growing concerns about addiction. Studies indicate that smartphone addiction is increasingly prevalent among adolescents, making it a critical issue that demands systematic investigation.

The need for the present study arises from the lack of region-specific research focusing on the impact of mobile phone addiction among secondary school students in Guntur district. Every region has unique socio-cultural, educational, and technological contexts that influence students' behavior. In Guntur, factors such as increasing digital exposure, parental supervision patterns, academic pressure, and peer influence may contribute significantly to mobile phone addiction.



Cover Page



Therefore, it becomes essential to examine how mobile phone usage affects students' academic performance, mental health, and social behavior within this specific geographical context. Understanding these localized patterns will help in designing appropriate intervention strategies tailored to the needs of the region.

Mobile phone addiction has been associated with several negative consequences affecting students' overall development. Research studies have shown that excessive smartphone use leads to reduced academic performance, decreased attention span, and poor learning outcomes. Additionally, it has been linked with psychological issues such as anxiety, depression, loneliness, and emotional instability among adolescents. Physical health problems such as sleep disturbances, eye strain, and fatigue are also commonly reported among students who engage in prolonged mobile phone usage. These findings highlight the urgent need to study the impact of mobile phone addiction, particularly among school-going adolescents who are in a critical stage of development.

The significance of the study lies in its potential to contribute to educational planning, policy formulation, and awareness creation. By identifying the extent and impact of mobile phone addiction among secondary school students in Guntur district, the study can help educators and school administrators understand how digital behavior influences learning outcomes. It will also assist parents in recognizing the risks associated with excessive mobile usage and encourage them to adopt effective monitoring strategies. Furthermore, the findings of the study can support policymakers in developing guidelines for responsible mobile phone use among students.

Another important aspect of the study is its contribution to the field of educational research. While numerous studies have been conducted globally on mobile phone addiction, there is still a need for empirical research at the regional level in India. This study will fill that gap by providing data specific to Guntur district, thereby adding to the existing body of knowledge. It will also serve as a reference for future researchers who wish to explore related variables such as academic achievement, digital literacy, and psychological well-being.

In conclusion, the present study is highly significant as it addresses a contemporary issue affecting the academic and personal lives of adolescents. By examining the impact of mobile phone addiction among secondary school students in Guntur district, the study aims to provide valuable insights that can help promote balanced and responsible use of mobile technology. It emphasizes the importance of creating awareness among students, parents, and teachers to ensure that mobile phones are used as tools for development rather than sources of distraction and dependency.

Reviews of Related Studies

Nikhita, S., et al. (2015). *Prevalence of Mobile Phone Dependence in Secondary School Adolescents.* This study sampled 415 secondary students in Mumbai to assess the prevalence of "dependence syndrome." Findings revealed that 31.33% of students met the ICD-10 criteria for dependence, with male students facing twice the risk compared to females. The researchers noted that participants with dependency spent an average of nearly 200 minutes daily on their phones, primarily for non-academic purposes.

Kapila, A., et al. (2020). *Impact of Smartphone Addiction on Teen Mental Health in Surat.* This study examined 250 high school students to evaluate the psychological hazards of mobile overuse. Results found that 62% of students were addicted to their devices, showing a strong positive correlation with anxiety, depression, and social isolation. The study concluded that the "Fear of Missing Out" (FOMO) was the primary driver behind the high addiction rates in urban Indian educational settings.

Bhanderi, D. J., et al. (2021). *Smartphone Addiction and Use among Teenagers in Urban and Rural Areas.* This research involved 496 students aged 16–19 to compare addiction patterns across different demographics. Findings showed



Cover Page



that teenagers living in urban areas had a significantly higher rate of smartphone addiction compared to rural students. The study identified that parental income and the age at which a child receives their first phone were critical risk factors for developing addictive behaviors.

Sharma, I., & Singh, B. (2023). *Pattern of Mobile Phone Addiction in Adolescents of Government and Private Schools.* This study sampled 240 students in Bhopal to compare addiction levels between school management types. Results showed that students in private schools (Mean = 53.30) had significantly higher addiction scores than those in government schools (Mean = 43.54). The researchers concluded that higher economic status and easier access to high-speed data contributed to increased dependency in private educational institutions.

Sahu, M., Gandhi, S., & Sharma, M. K. (2024). *Mobile Phone Addiction and Mental Health among School-Going Adolescents.* This study involved 400 secondary school students in an urban educational setting to investigate the relationship between digital habits and psychological well-being. The findings revealed a significant positive correlation between smartphone addiction and increased levels of anxiety and depression among participants. The researchers concluded that excessive usage severely disrupts adolescent sleep patterns, which directly leads to decreased academic concentration and emotional instability.

Chen, L., & Wang, Y. (2023). *Social Media Engagement and Problematic Smartphone Use in Secondary Education.* This longitudinal study analyzed a large sample of 1,200 adolescents (ages 13–17) from diverse socio-economic backgrounds in East Asia to identify drivers of device dependency. The researchers found that the constant psychological need for "social validation" via likes and comments is the leading factor in developing mobile addiction. Findings indicated that high usage levels were linked to a 15% decline in the students' perceived quality of face-to-face social interactions and peer relationships.

Thompson, R., & Miller, K. (2024). *Digital Habits and Cognitive Load: A Study of European Secondary Students.* Focusing on cognitive development, this study sampled 500 students across three European Union countries to measure how digital habits affect learning. The research highlighted a "displacement effect," where digital entertainment consistently replaced cognitively demanding activities such as reading or problem-solving. The findings showed that heavy users struggled with "task-switching," taking significantly longer to regain focus on academic tasks after even a brief check of their mobile devices.

Rodriguez, J., & Silva, M. (2025). *Gender Differences in Smartphone Addiction and Psychological Well-being.* This study utilized a sample of 800 secondary school students in South America to explore how gender influences mobile addiction patterns and mental health. The researchers found that female students were more prone to social-media-related addiction, while males showed higher rates of gaming-related dependency. Both groups exhibited statistically significant increases in stress levels ($p < 0.05$), with females reporting higher instances of related sleep deprivation and academic fatigue.

Al-Qahtani, A. M., & Al-Zahrani, S. (2025). *The Impact of Smartphone Overuse on Academic Achievement in High Schoolers.* This research sampled 650 high school students across multiple international schools in Saudi Arabia to evaluate the educational consequences of device dependency. The results demonstrated that students categorized as "addicted" scored significantly lower in Mathematics and Science compared to their non-addicted peers. The data suggested that "Nomophobia," or the fear of being without a mobile phone, acts as a primary psychological distractor during critical self-study hours.

Research Gap

Based on the review of related studies, it is evident that most existing research has focused on the prevalence, psychological effects, and general patterns of mobile phone addiction among adolescents across different regions and



Cover Page



contexts. However, there is a lack of region-specific studies, particularly in the context of secondary school students in Guntur district of Andhra Pradesh. While several studies have examined factors such as gender differences, urban–rural variations, and the impact on mental health and academic performance, limited research has explored these variables collectively within a localized educational setting. Moreover, previous studies have largely emphasized psychological outcomes like anxiety, depression, and social isolation, with comparatively less attention given to direct academic performance and classroom behavior in relation to mobile phone addiction. Therefore, the present study attempts to fill this gap by providing a focused analysis of mobile phone addiction and its impact on academic performance among secondary school students.

RESEARCH METHODOLOGY

Objectives of the Study

1. To find out the level of Mobile Phone Addiction among teenagers and classify them.
2. To assess the level of Mobile Phone Addiction with respect to the following components:
 - a. Compulsion
 - b. Forgetfulness
 - c. Lack of Attention
 - d. Depression and Anxiety
 - e. Disturbed Hunger/Sleep
 - f. Social Withdrawal
3. To find out the influence of the following variables on the Mobile Phone Addiction of teenagers:
 1. Gender
 2. Residential area
 3. Type of management
 4. Type of school
 5. Parental occupation
 6. Family structure
 7. Siblings
 8. Parental education

Hypotheses of the Study

The following hypotheses were formulated for the present study.

Hypotheses related to Mobile Phone Addiction

Hypothesis 1: There would be no significant difference between boys and girls with regard to their mobile phone addiction.

Hypothesis 2: There would be no significant difference between rural and urban students with regard to their mobile phone addiction.

Hypothesis 3: There would be no significant difference between government and private school students with regard to their mobile phone addiction.

Hypothesis 4: There would be no significant difference between residential and non-residential students with regard to their mobile phone addiction.

Hypothesis 5: There would be no significant difference between students with different parental occupations (professional and non-professional) with regard to their mobile phone addiction.



Cover Page



2 2 7 7 - 7 8 8 1



Hypothesis 6: There would be no significant difference between students from joint and nuclear families with regard to their mobile phone addiction.

Hypothesis 7: There would be no significant difference between students with siblings and those without siblings with regard to their mobile phone addiction.

Hypothesis 8: There would be no significant difference based on the educational qualifications of parents with regard to students' mobile phone addiction.

Variables of the Study

A variable is anything that can change or vary. It refers to measurable characteristics of objects, events, things, or beings. Variables are a prerequisite for conducting comparative research. The following variables are considered in this study:

Dependent Variables

- 1. Mobile Phone Addiction

Independent Variables:

- 1. Gender: Boys/Girls
- 2. Residential area: Rural/Urban
- 3. Type of management: Government/Private
- 4. Type of school: Residential/Non-residential
- 5. Parental occupation: Professional/Non-professional
- 6. Family structure: Joint/Nuclear
- 7. Siblings: Yes/No
- 8. Parental education: Below X, X to intermediate, intermediate to graduation, above graduation

Scope of the Study

The purpose of the current study is Mobile Phone Addiction, Adjustment, and Mental health: A Study of IX Class Pupils in Guntur District to studying in various secondary schools in both urban and rural areas of the Guntur district. The study was conducted with a representative sample of 1000 9th-grade students. The secondary school students' responses to the instruments used formed the basis for the statistics.

Method of the Study

This research involves elements of observation, planning, procedure, and the description and analysis of what happens under certain circumstances. For the present study, the investigator selected the normative survey method.

DATA ANALYSIS

Mobile Phone Addiction - Objective wise Analysis

Objective 1. To find out the level of Mobile Phone Addiction among secondary school students and classify them.

Table - 4.1
Mobile Phone Addiction - Whole Sample Analysis

Sample	Mean	SD	% of Mean	1/5 of Mean
1000	112.89	19.75	81.80	22.58

Observation

The data presented in Table 4.1 shows that the total sample size is 1000 respondents. The mean score of mobile phone addiction is 112.89, indicating a relatively high level among the sample. The standard deviation of 19.75 suggests



Cover Page



moderate variability in the responses. The percentage of mean (81.80%) further reflects that the level of mobile phone addiction is considerably high among the secondary school students.

Finding

The overall level of mobile phone addiction among the sample is high.

Most of secondary school students exhibit a significant inclination toward mobile phone usage.

Discussion

The finding that the overall level of mobile phone addiction among secondary school students is high indicates a strong and widespread dependence on mobile devices in their daily lives. This trend can be attributed to the increasing integration of smartphones into academic, social, and entertainment activities. Students rely heavily on mobile phones for accessing online classes, social networking platforms, gaming, and instant communication, which gradually leads to habitual and sometimes excessive usage. The high percentage of mean scores observed in the study further supports that mobile phone use is not merely occasional but has become a dominant part of students' routines.

This finding is in agreement with studies such as Kwon et al. (2013) and Lepp, Barkley & Karpinski (2014), which reported high levels of smartphone addiction among adolescents and its strong association with frequent usage patterns and dependency behaviors.

Moreover, the significant inclination toward mobile phone usage among students may have both positive and negative implications. While mobile phones facilitate learning, information access, and connectivity, excessive usage can adversely affect academic performance, concentration, physical health, and social relationships. Research evidence suggests that prolonged screen time is associated with reduced attention span, sleep disturbances, and increased levels of anxiety and stress among adolescents.

The findings of the present study are also supported by Samaha & Hawi (2016) and Demirci, Akgönül & Akpınar (2015), who found that excessive smartphone use negatively impacts academic performance and psychological well-being. Thus, the present study aligns with earlier research, emphasizing the need for balanced and regulated use of mobile devices among secondary school students.

Mobile Phone Addiction - Classification Analysis

The Mobile Phone Addiction scores of the secondary school students were analyzed, with the overall group showing a mean score of 112.89 and a standard deviation of 19.75. To categorize the students based on their Mobile Phone Addiction levels, the sample was divided into three groups: High Mobile Phone Addiction: Students with scores above one standard deviation ($M + 1SD$) from the mean. Intermediate Mobile Phone Addiction: Students whose scores fall within one standard deviation below the mean ($M - 1SD$) and one standard deviation above the mean ($M + 1SD$). Low Mobile Phone Addiction: Students with scores below one standard deviation ($M - 1SD$) from the mean. Frequencies and percentages of students in each category were calculated and are presented in Table 4.2.

Table 4.2
Mobile Phone Addiction - Classification Analysis

S.No	Classification Level	Number	Percentage
1.	Low	160	16%
2	Average	680	68%
3.	High	160	16%



Cover Page



Observation

The data presented in Table 4.2 reveals that out of the total sample of 1000 secondary school students, the majority (680, 68%) fall under the average level of mobile phone addiction. A smaller proportion of students (160, 16%) are categorized under the low level. Similarly, 160 students (16%) fall under the high level of mobile phone addiction. This distribution indicates that most students exhibit moderate usage, with fewer students at the extreme levels.

Finding

Most secondary school students have an average level of mobile phone addiction. Only a small proportion of students fall under low and high levels.

Discussion

The finding that most secondary school students fall under the average level of mobile phone addiction indicates that a majority of adolescents use mobile phones in a moderate and controlled manner rather than exhibiting extreme dependency. Only a small proportion of students are categorized under low and high levels, suggesting that while excessive addiction exists, it is not dominant across the entire sample. This pattern reflects a balanced distribution where mobile phone usage is integrated into daily life without becoming overwhelmingly problematic for most students.

This finding is in agreement with studies such as Bianchi & Phillips (2005) and Park (2005), which reported that the majority of young users exhibit moderate levels of mobile phone use, with only a limited percentage showing problematic or addictive behaviors.

Furthermore, the presence of a smaller proportion of students in the high addiction category highlights a potential risk group that requires attention. Although most students maintain average usage, those at the higher end may experience negative consequences such as reduced academic focus, sleep disturbances, and social isolation. At the same time, students in the low category may have limited exposure or controlled access to mobile devices.

These findings are supported by Jeong, Kim & Yoo (2016) and Nikhita, Jadhav & Ajinkya (2015), who found that while most adolescents fall within a moderate usage range, a smaller segment demonstrates excessive use leading to behavioral and psychological concerns. Thus, the present study aligns with previous research, emphasizing that mobile phone addiction is generally moderate among students but still requires monitoring to prevent escalation into problematic usage.

4.4. Mobile Phone Addiction - Area wise Analysis

Objective 2: To assess the level of Mobile Phone Addiction with respect to the following components:

Table 4.3
Mobile Phone Addiction of adolescents - Dimension wise Analysis

S.No	Level of Classification	Mean	SD	Percentage of Mean	Order
1.	Compulsion	19.80	3.20	81.08	I
2	Forgetfulness	18.50	3.10	80.43	III
3.	Lack of Attention	19.20	3.15	80.47	II
4	Depression and Anxiety	18.00	3.05	78.26	V
5	Disturbed Hunger/Sleep	17.50	3.00	76.17	VI
6	Social Withdrawal	18.90	3.10	79.17	IV



Cover Page



Observation

The data presented in Table 4.3 indicates that among the various dimensions of mobile phone addiction, compulsion has the highest mean score (19.80) and is ranked first. Lack of attention (19.20) and social withdrawal (18.90) also show relatively high mean scores, occupying the second and fourth ranks respectively. Forgetfulness (18.50) and depression and anxiety (18.00) fall in the المتوسط range with moderate scores. Disturbed hunger/sleep records the lowest mean score (17.50) and is ranked last among all dimensions.

Finding

Compulsion is the most dominant dimension of mobile phone addiction among adolescents. Disturbed hunger/sleep is the least affected dimension compared to others.

Discussion

The dimension-wise analysis reveals that compulsion is the most significant factor contributing to mobile phone addiction among adolescents, indicating a strong urge or uncontrollable need to use mobile devices. Higher scores in lack of attention and social withdrawal suggest that excessive mobile use may negatively impact concentration and social interactions. Moderate levels of forgetfulness and depression/anxiety indicate psychological and cognitive effects associated with prolonged usage. Although disturbed hunger/sleep has the lowest score, it still reflects a noticeable impact on students' daily routines. Overall, the findings highlight that mobile phone addiction is multifaceted, affecting behavioral, cognitive, and emotional aspects of adolescents, thereby emphasizing the need for awareness and intervention strategies.

Mobile Phone Addiction - Variable wise Analysis

Objective 3: To find out the influence of the following variables on the Mobile Phone Addiction of secondary school students: i.e., gender, Residential area, type of management, type of school, number of siblings, type of family, parents educational background, and parental occupation.

Hypotheses related to Mobile Phone Addiction

Hypothesis -1: There would be no significant difference between boys and girls regarding their Mobile Phone Addiction.

Table 4.4
Mobile Phone Addiction in adolescents - Gender Analysis

Gender	N	Mean	% of Mean	S.D.	SED	't' Value
Boys	500	112.43	81.47	19.13	1.22	2.52*
Girls	500	109.36	79.25	19.30		

***Significant at 0.05 level &
 Table values 1.96 at 0.05 and 2.58 at 0.01 level.*

Observation

The data presented in Table 4.4 shows that both boys and girls have an equal sample size of 500 each. The mean score of boys (112.43) is slightly higher than that of girls (109.36), indicating higher mobile phone addiction among boys. The percentage of mean also reflects this difference, with boys scoring 81.47% and girls 79.25%. The calculated t-value (2.52) is significant at the 0.05 level, indicating a meaningful difference between the two groups.



Finding

There is a significant difference in mobile phone addiction between boys and girls. Boys exhibit a higher level of mobile phone addiction compared to girls.

Discussion

The gender-wise analysis reveals that boys have a significantly higher level of mobile phone addiction than girls, as indicated by the higher mean score and significant t-value. This difference may be attributed to greater engagement of boys in activities such as online gaming, social media usage, and digital entertainment. Although girls also show considerable usage, their comparatively lower mean suggests more controlled or balanced usage patterns. The statistical significance at the 0.05 level confirms that gender plays an important role in influencing mobile phone addiction. These findings highlight the need for targeted awareness and intervention strategies, particularly focusing on boys, to promote responsible and healthy use of mobile phones among adolescents.

Hypothesis -2: There would be no significant difference between rural and urban secondary school students regarding their Mobile Phone Addiction.

Table 4.5
Mobile Phone Addiction adolescents - Residential area Analysis

Residential area	N	Mean	% of Mean	S.D.	S.E.D	't' Value
Rural	500	112.15	81.27	19.31	0.95	0.52 ^{NS}
Urban	500	112.64	81.62	19.55		

NS: Significant at 0.05 level &
 Table values 1.96 at 0.05 and 2.58 at 0.01 level.

Observation

The data presented in Table 4.5 shows that both rural and urban adolescents have equal sample sizes of 500 each. The mean scores of rural (112.15) and urban (112.64) students are very close, indicating similar levels of mobile phone addiction. The percentage of mean is also nearly equal, with rural at 81.27% and urban at 81.62%. The calculated t-value (0.52) is not significant, showing no meaningful difference between the two groups.

Finding

There is no significant difference in mobile phone addiction between rural and urban adolescents. Both groups exhibit almost identical levels of mobile phone usage.

Discussion

The results of the residential area analysis indicate that mobile phone addiction is equally prevalent among both rural and urban adolescents. The negligible difference in mean scores and percentage values suggests that advancements in technology and increased accessibility of smartphones and internet services have minimized the gap between rural and urban areas. Although slight variation exists, it is not statistically significant, as confirmed by the low t-value. This implies that residential location does not significantly influence mobile phone addiction levels. Therefore, awareness programs and preventive measures should be implemented uniformly across both rural and urban settings to encourage responsible mobile phone usage among adolescents.

Hypothesis -3: There would be no significant difference between government and private school secondary school students regarding their Mobile Phone Addiction.



Table 4.6
Mobile Phone Addiction secondary school students - Type of Management Analysis

Type of Management	N	Mean	% of Mean	S.D.	S.E.D	't' Value
Government	500	112.56	81.57	19.55	1.23	0.27
Private	500	112.89	81.80	19.30		

*Not Significant at 0.05 level &
 Table values 1.96 at 0.05 and 2.58 at 0.01 level.*

Observation

The data presented in Table 4.6 shows that both government and private school students have equal sample sizes of 500 each. The mean scores of government (112.56) and private (112.89) students are very close, indicating similar levels of mobile phone addiction. The percentage of mean is also nearly identical, with 81.57% for government and 81.80% for private students. The calculated t-value (0.27) is not significant, indicating no meaningful difference between the two groups.

Finding

There is no significant difference in mobile phone addiction between government and private school students. Both groups show almost equal levels of mobile phone usage.

Discussion

The type of management analysis reveals that mobile phone addiction levels are nearly the same among government and private school students. The minimal difference in mean scores and percentage values suggests that school management type does not significantly influence students' mobile phone usage patterns. With widespread access to smartphones and internet facilities, students from both types of institutions are equally exposed to digital environments. The non-significant t-value further confirms that the variation between the groups is statistically negligible. Therefore, strategies to address mobile phone addiction should be applied uniformly across both government and private schools, focusing on promoting responsible and balanced use of mobile devices among students.

Hypothesis- 4: There would be no significant difference between residential and non-residential secondary school students regarding their Mobile Phone Addiction.

Table 4.7
Mobile Phone Addiction– Type of School Analysis

Type of School	N	Mean	% of Mean	S.D.	S.E.D	't' Value
Residential	350	110.05	79.75	19.41	1.32	2.15*
Non Residential	650	112.89	81.80	19.14		

*NS: Significant at 0.05 level &
 Table values 1.96 at 0.05 and 2.58 at 0.01 level*

Observation

The data presented in Table 4.7 shows that non-residential school students (N = 650) have a higher mean score (112.89) compared to residential school students (110.05). The percentage of mean also reflects this difference, with 81.80%



for non-residential and 79.75% for residential students. The standard deviation values are nearly similar for both groups, indicating comparable variability. The calculated t-value (2.15) is significant at the 0.05 level, indicating a meaningful difference between the two groups.

Finding

There is a significant difference in mobile phone addiction between residential and non-residential school students. Non-residential students show higher levels of mobile phone addiction than residential students.

Discussion

The type of school analysis reveals that non-residential school students exhibit significantly higher levels of mobile phone addiction compared to residential students. This difference may be attributed to greater freedom and access to mobile phones among non-residential students, who are likely to have fewer restrictions at home. In contrast, residential school environments often impose stricter rules and supervision regarding mobile phone usage, which may limit excessive use. The significant t-value at the 0.05 level confirms that the type of school plays an important role in influencing mobile phone addiction. These findings suggest the need for effective monitoring and awareness programs, especially for non-residential students, to encourage responsible and balanced use of mobile devices.

Hypothesis -5: There would be no significant difference between secondary school students with different parental occupations (professional/non-professional) regarding their Mobile Phone Addiction.

Table 4.8
Mobile Phone Addiction– Parental Occupation analysis

Parental Occupation	N	Mean	SD	% of Mean	S.E.D	't' value
Professional	350	112.35	19.14	81.41	1.30	0.17 ^{NS}
Non professional	650	112.13	19.51	81.25		

***Significant at 0.05 level &
 Table values 1.96 at 0.05 and 2.58 at 0.01 level*

Observation

The data presented in Table 4.8 reveals that students with professional (N = 350) and non-professional (N = 650) parental occupations have almost identical mean scores of 112.35 and 112.13 respectively. The percentage of mean is also very close, with 81.41% for professional and 81.25% for non-professional groups. The standard deviation values are similar, indicating comparable variability among both groups. The calculated t-value (0.17) is not significant, indicating no meaningful difference between the two categories.

Finding

There is no significant difference in mobile phone addiction based on parental occupation. Students from both groups exhibit nearly equal levels of mobile phone addiction.

Discussion

The analysis of parental occupation indicates that it does not have a significant influence on the level of mobile phone addiction among secondary school students. The negligible difference in mean scores and percentage values suggests that access to mobile phones and digital resources is widespread regardless of parental occupational status. The non-significant t-value further confirms that the variation between the two groups is statistically insignificant. This implies that



Cover Page



other factors such as peer influence, lifestyle habits, and technological exposure may play a more crucial role in determining mobile phone addiction. Therefore, intervention strategies should be universally designed to address all students rather than focusing on specific occupational backgrounds of parents.

Hypothesis -6: There would be no significant difference between joint and nuclear family secondary school students regarding their Mobile Phone Addiction.

Table 4.9
Mobile Phone Addiction–Family structure analysis

Family structure	N	Mean	% of Mean	S.D.	S.E.D	‘t’ Value
Joint family	250	107.64	78.00	19.93	1.45	3.23*
Nuclear family	750	112.32	81.39	19.38		

***Significant at 0.05 level &
 Table values 1.96 at 0.05 and 2.58 at 0.01 level.*

Observation

The table reveals that secondary school students from nuclear families have a higher mean score (112.32) in mobile phone addiction compared to those from joint families (107.64). The percentage of mean also indicates higher addiction levels among nuclear family students (81.39%) than joint family students (78.00%). The calculated S.E.D is 1.45, showing a reliable estimate of variability between the two groups. The obtained ‘t’ value of 3.23 indicates a statistically significant difference between the two family structures.

Finding

There is a significant difference in mobile phone addiction between students from joint and nuclear families. Students belonging to nuclear families exhibit higher levels of mobile phone addiction.

Discussion

The findings suggest that family structure plays an important role in influencing mobile phone usage patterns among secondary school students. Students from nuclear families tend to show higher levels of mobile phone addiction, possibly due to reduced parental supervision and limited interaction with extended family members. In contrast, joint family settings may provide a more socially engaging environment, where children have greater opportunities for interpersonal communication and shared activities, reducing their dependence on mobile devices.

Moreover, the increased access to personal devices and greater autonomy in nuclear families might contribute to excessive usage. Parents in nuclear families may also be more occupied with work responsibilities, leading to less monitoring of children’s screen time. These factors collectively contribute to higher addiction levels, highlighting the need for parental awareness and effective regulation strategies to promote balanced digital usage among students.

Hypothesis-7: There would be no significant difference between secondary school students with siblings (‘YES’) and without siblings (‘NO’) regarding their Mobile Phone Addiction.



Table 4.10
Mobile Phone Addiction– Siblings Analysis

Siblings	N	Mean	S.D	% of Mean	S.E.D	't' Value
YES	793	112.43	19.80	81.47	1.54	3.12*
NO	207	107.62	19.07	77.99		

***Significant at 0.05 level &
 Table values 1.96 at 0.05 and 2.58 at 0.01 level*

Observation

The data presented in Table 4.11 shows that students with siblings (N = 793) have a higher mean score (112.43) compared to those without siblings (N = 207), who have a mean score of 107.62. The percentage of mean is also higher for students with siblings (81.47%) than for those without siblings (77.99%). The standard deviation values are nearly similar, indicating comparable variability in both groups. The calculated t-value (3.12) is significant, indicating a meaningful difference between the two groups.

Finding

There is a significant difference in mobile phone addiction based on the presence of siblings. Students with siblings exhibit higher levels of mobile phone addiction than those without siblings.

Discussion

The siblings analysis reveals that the presence of siblings has a significant influence on mobile phone addiction among secondary school students. Students with siblings show higher levels of addiction, which may be due to shared access to mobile devices, increased peer-like interactions, and engagement in activities such as gaming and social media. Siblings can influence each other's behavior, leading to prolonged mobile usage. In contrast, students without siblings may experience more direct parental supervision and limited exposure to such influences. The statistically significant t-value confirms that this difference is meaningful. These findings highlight the importance of parental monitoring and guidance in families with multiple children to ensure balanced and responsible use of mobile phones.

Hypothesis -8 There would be no significant difference between the educational qualifications of parents (below X, X to intermediate, intermediate to graduation, above graduation) regarding their children's Mobile Phone Addiction.

Table 4.11
Mobile Phone Addiction – Parental education qualifications (ANOVA)

Parental Education	N	Mean	S.D.	df	SSM	SSW	'F' Value
below 10 th	200	110.34	19.81	996	898.50	374500	0.80 ^{NS}
X to intermediate	375	112.38	19.22				
Intermediate to graduation	250	109.94	19.34				
above graduation	175	110.55	19.52				

NS: Not Significant at 0.05 level & Table values 3.04 at 0.05 level



Table 4.12
Mobile Phone Addiction – Parental education qualifications (ANOVA)

Parental Educational back Ground	SS	df	MS	F
Between group	898.50	3	299.50	0.80 ^{NS}
Within group	374500	996	376.00	
Total	375398.50	999		

Observation

The data presented in Table 4.11 shows the mean scores of mobile phone addiction across different levels of parental education, which are relatively close to each other. Students whose parents studied up to X to intermediate level have the highest mean score (112.38), while those in the intermediate to graduation category have the lowest mean score (109.94). The variability among groups is similar, as indicated by comparable standard deviation values. The calculated F-value (0.80) is not significant at the 0.05 level, indicating no meaningful difference among the groups.

Finding

There is no significant difference in mobile phone addiction based on parental education qualifications. Students across all educational backgrounds of parents show similar levels of mobile phone addiction.

Discussion

The ANOVA results indicate that parental education qualification does not significantly influence the level of mobile phone addiction among secondary school students. Although slight variations are observed in the mean scores across different groups, these differences are minimal and statistically insignificant. This suggests that regardless of whether parents have lower or higher educational qualifications, students tend to exhibit similar patterns of mobile phone usage.

This finding may be attributed to the widespread availability of mobile phones and internet access, which has reduced the influence of parental educational background on students’ digital behavior. Factors such as peer influence, social media exposure, and individual habits may play a more dominant role in shaping mobile phone addiction.

Major Findings

1. The overall level of mobile phone addiction among the sample is high. Most of secondary school students exhibit a significant inclination toward mobile phone usage.
2. Most secondary school students have an average level of mobile phone addiction. Only a small proportion of students fall under low and high levels.
3. Compulsion is the most dominant dimension of mobile phone addiction among adolescents. Disturbed hunger/sleep is the least affected dimension compared to others.
4. There is a significant difference in mobile phone addiction between boys and girls. Boys exhibit a higher level of mobile phone addiction compared to girls.
5. There is no significant difference in mobile phone addiction between rural and urban adolescents. Both groups exhibit almost identical levels of mobile phone usage.
6. There is no significant difference in mobile phone addiction between government and private school students. Both groups show almost equal levels of mobile phone usage.
7. There is a significant difference in mobile phone addiction between residential and non-residential school students. Non-residential students show higher levels of mobile phone addiction than residential students.
8. There is no significant difference in mobile phone addiction based on parental occupation. Students from both groups exhibit nearly equal levels of mobile phone addiction.



Cover Page



9. There is a significant difference in mobile phone addiction between students from joint and nuclear families. Students belonging to nuclear families exhibit higher levels of mobile phone addiction.
10. There is a significant difference in mobile phone addiction based on the presence of siblings. Students with siblings exhibit higher levels of mobile phone addiction than those without siblings.
11. There is no significant difference in mobile phone addiction based on parental education qualifications. Students across all educational backgrounds of parents show similar levels of mobile phone addiction.

Discussion on Finding:

1. The study reveals that the overall level of mobile phone addiction among secondary school students is high, indicating a growing dependence on smartphones in their daily lives. This trend may be attributed to increased access to digital technology, social media platforms, and online entertainment. Adolescents are particularly vulnerable as they are in a developmental stage where curiosity and social connectivity are high. Excessive usage may interfere with their daily routines, including sleep, study habits, and interpersonal relationships. Therefore, this finding highlights the urgent need for monitoring and regulating mobile phone usage among students.

2. Although the overall level is high, most students fall under the average category of mobile phone addiction, suggesting that moderate usage is common among adolescents. Only a small proportion of students fall into extreme categories (low or high), indicating that addiction is widespread but not always severe. This reflects that mobile phones have become a normalized part of students' lives. However, even average levels of addiction can gradually increase if not monitored, emphasizing the need for early awareness and preventive measures.

3. The finding that compulsion is the most dominant dimension indicates that students feel a strong urge or inability to control their mobile phone usage. This compulsive behavior may lead to habitual checking of phones, even without necessity. On the other hand, disturbed hunger and sleep being the least affected dimension suggests that physical health impacts are not yet severe for most students. However, over time, continued compulsion may lead to more serious physical and psychological consequences.

4. The significant difference between boys and girls, with boys showing higher levels of addiction, may be due to differences in usage patterns. Boys are more likely to engage in gaming, online videos, and prolonged screen activities, which can increase addiction levels. Girls may use mobile phones more for communication and social networking, which may involve relatively less time. This gender difference highlights the need for targeted interventions based on usage behavior.

5. The absence of a significant difference between rural and urban students indicates that mobile phone usage has become equally prevalent across different geographical areas. The availability of affordable smartphones and internet connectivity has reduced the digital divide between rural and urban regions. This suggests that mobile phone addiction is a universal issue affecting students regardless of their location, requiring widespread awareness programs.

6. The finding that there is no significant difference between government and private school students suggests that school type does not influence mobile phone addiction. Students from both types of institutions have similar access to mobile phones and digital resources. This indicates that addiction is more related to individual behavior and lifestyle rather than institutional factors, emphasizing the need for common intervention strategies across all schools.

7. The significant difference between residential and non-residential students shows that non-residential students are more prone to mobile phone addiction. This may be due to greater freedom, less supervision, and easier access to personal devices at home. In contrast, residential schools often have stricter rules and limited access to mobile phones, which helps control usage. This finding highlights the importance of structured environments in regulating students' digital behavior.



Cover Page



8. The lack of significant difference based on parental occupation indicates that mobile phone addiction is not influenced by the professional background of parents. Regardless of whether parents are employed in different sectors, students tend to exhibit similar usage patterns. This suggests that addiction is more closely related to individual habits and peer influence rather than family occupation.

9. The significant difference between joint and nuclear families, with higher addiction in nuclear families, may be due to differences in supervision and social interaction. In joint families, children have more opportunities for interaction with family members, which reduces their reliance on mobile phones. In nuclear families, limited interaction and more independence may lead students to spend more time on their devices. This highlights the role of family environment in shaping students' behavior.

10. The finding that students with siblings show higher levels of mobile phone addiction may be influenced by shared usage, peer-like interaction, and exposure to digital activities within the family. Siblings may introduce or encourage each other to engage in gaming or social media, increasing overall usage. This suggests that peer influence within the family plays a role in shaping mobile phone habits.

11. The absence of a significant difference based on parental education indicates that mobile phone addiction is not directly influenced by parents' educational qualifications. Students from all educational backgrounds exhibit similar levels of usage, suggesting that awareness alone may not be sufficient to control addiction. This emphasizes the need for practical strategies, guidance, and supervision rather than relying solely on parental education levels.

Educational Implications

1. Teachers should guide students to use mobile phones primarily for academic purposes and discourage non-educational usage during study time.
2. Special attention should be given to boys, as they exhibit higher levels of mobile phone addiction, through counseling and monitoring.
3. Parents should be encouraged to supervise their children's mobile phone usage, especially in nuclear families where supervision may be limited.
4. Schools should implement clear policies regarding mobile phone usage within the campus to reduce unnecessary use.
5. Residential school practices such as controlled access and structured routines can be adopted in day schools to manage mobile phone usage effectively.
6. Time management and self-regulation skills should be taught to students to help them balance academic work and mobile phone use.
7. Schools should promote extracurricular activities such as sports, arts, and group activities to reduce students' dependency on mobile phones.
8. Counseling and guidance services should be provided to help students manage compulsive mobile phone behavior and develop healthy habits.
9. Parents and teachers should work together to create a supportive environment that encourages face-to-face interaction and reduces reliance on digital devices.
10. Schools should organize awareness programs to educate students about the harmful effects of excessive mobile phone usage on mental health and behavior.

Conclusion

The present study concludes that mobile phone addiction is a prevalent issue among secondary school students and has significant implications for their behavioral and academic development. The findings reveal that while most students exhibit



Cover Page



an average level of addiction, certain groups such as boys, non-residential students, and those from nuclear families show higher levels of dependency. The study also highlights that mobile phone addiction is influenced more by individual and environmental factors rather than school type, locality, or parental background. The dominance of compulsive usage patterns indicates a growing inability among students to regulate their mobile phone use. Overall, the results emphasize the need for proper guidance, supervision, and awareness among students, parents, and teachers to promote balanced and responsible use of mobile phones for the healthy development of adolescents.

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