Research Paper

Understanding Social Media Addiction: The Nexus of Adolescent Problems and Family Environment in Indian Context

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ABSTRACT

This study delved into the intricate interplay between social media addiction and various dimensions of adolescent issues, encompassing family, academic, personal, and social domains. Categorizing participants into three groups based on their addiction status, we employed the YPI and SMAS-SF scale and then performed the Mann-Whitney U test to explore disparities in adolescent issues across these groups. Notably, a significant positive correlation emerged between the problems faced by adolescents and their susceptibility to social media addiction. Personal and social issues were found to be strong predictors of addiction, highlighting the intricate connection between adolescent challenges and the allure of social media platforms. Regression analysis revealed that family problems and personal problems significantly influence an adolescent's overall life challenges. In essence, addiction arises from adolescent problems, and these problems, in turn, find their roots in family and personal issues. This study sheds light on the indirect link between family problems and a child's inclination toward social media addiction, emphasizing the role of family dynamics in shaping adolescent well-being.

Keywords: *Social Media Addiction, Adolescent Issues, Family Issues, Academic Issues, Personal Issues, Social Issues, Youth Problem Inventory, Social Media Addiction Scale-Student Form, Mann-Whitney U Test, Regression*

In recent years, the proliferation of Social Networking Sites (SNSs) has reshaped the dynamics of social interaction, particularly among adolescents and young adults. (Griffith and Kuss 2017) observed an increasing prevalence of SNS usage, often driven by the pervasive "fear of missing out" (FOMO), as individuals strive to stay current with their peers, for being socially acceptable (Oberst et al., 2017). However, this alarming phenomenon is a burgeoning body of research where they used the Bergen Social Media Addiction Scale (BSMAS) and based on latent profile analysis, 4.5% of the adolescents belonged to the at-risk group, reported low self-esteem and high levels of depression symptoms (Fanni Baniya et al, 2017). This research underscores the intricate relationship between FOMO, social security, and personal self-esteem.

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Delving into more localized studies, (Ramesh Masti 2018) reported a staggering 36.9% prevalence of social media addiction among college students in Southern India. This addiction, as Masti found, manifested in behavioural, physical, and psychological changes, often accompanied by the peculiar phenomenon of "ringxiety." (Lipka Malik 2023) shed light on the role of boredom in perpetuating this addiction, while (Gunjan Saxena et al. 2021) focused on the consequences of late-night social media usage in Delhi, particularly in relation to academic performance and ringxiety.

Further emphasizing the gravity of the issue, (Saurav Basu 2018) investigated addiction-like behaviours, impaired control, and the compromises individuals make in their pursuit of digital connection. (Navya Gangadharan 2022) highlighted a growing prevalence of phone addiction among students in the Delhi National Capital Region.

While these studies offer valuable insights into the consequences of social media addiction, it is imperative to discern why students, particularly teenagers, are drawn to these platforms in the first place, often at the expense of their well-being. (Best et al. 2014) pointed out that social media can provide a platform for teenagers to experiment with their self-identity, bolster self-esteem, seek perceived social support, and engage in self-disclosure.

Additionally, theoretical models, as proposed by (CS Anderson 2015), suggest that social media addiction is shaped by a confluence of factors, including dispositional traits, societal and cultural influences, and behavioural reinforcement mechanisms.

This research seeks to bridge the existing gap by shedding light on the multifaceted issues faced by students in the digital age, encompassing social, personal, familial, and academic dimensions. By identifying the root causes of addiction, we aim to develop strategies to prevent its onset, thus safeguarding the well-being of future generations and mitigating the adverse consequences associated with social media dependency. In doing so, we hope to pave the way for a more balanced and harmonious relationship between individuals and their digital environments.

METHODOLOGY

Research Design
This study employed a descriptive research design to investigate the relationship between social media addiction and problems in adolescents' lives. The population for this study consisted of adolescents aged 14 to 18 residing in Delhi NCR. The inclusion criteria for the study included participants who were between 14 to 18 years of age and were focused on the Adolescent age group. Exclusion criteria excluded individuals who were not within the age range of 14 to 18 years to define the legal minimum age limit for joining a social media platform, that is 14 years.

Sample
The sample size was determined to be 100. 67 Females and 33 Males. The sample was further categorized into 3 groups Based on their social media addiction, Non-Addicted (n=61), Moderately Addicted (n=31), and Severely Addicted, (n=8).

Sampling Method
A non-probability convenience sampling technique was used for selecting the participants. The participants were recruited through various schools and social media platforms. Prior to

data collection, participants signed a consent form indicating their willingness to participate in the study.

Procedure

Data was collected using a self-administered survey that consisted of two instruments: The Social Media Addiction Scale - Student Form (SMAS-SF) by Dr Brian Shain (2014) and The Youth Problem Inventory (YPI) by R.C. Verma and P. Verma (1992).

The SMAS-SF was used to measure social media addiction, while the YPI was used to measure academic, personal, social, and familial problems. The survey was distributed online and offline, participants were given two weeks to complete it.

Analysis Plan

The data collected was analyzed using non-parametric statistical techniques and Linear Regression. Specifically, the Mann-Whitney U test was used to analyze independent data sets.

RESULTS

The study examined the relationship between social media addiction and four dimensions of adolescent issues, including family issues, academic issues, personal issues, and social issues, using the Social Media Addition Scale-Student Form (SMAS-SF) and the Youth Problem Inventory (YPI). The addiction status of the students was denoted as 1 for non-addicted students, 2 for moderately addicted students, and 3 for severely addicted students. Mann-Whitney U tests were conducted on the four dimensions of adolescent issues in three independent pairs (1 and 2, 2 and 3, and 1 and 3). The results are summarized in Tables 1, 2 and 3.

Table 1.1: Comparison of Non-Addicted and Moderately Addicted Students on Family, Academic, Personal, and Social Issues.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.^{a,b}	Decision
1	The distribution of A_Family is the same across categories of one_two.	Independent-Samples Mann-Whitney U Test	.163	Retain the null hypothesis.
2	The distribution of B_Academic is the same across categories of one_two.	Independent-Samples Mann-Whitney U Test	.090	Retain the null hypothesis.
3	The distribution of C_Social is the same across categories of one_two.	Independent-Samples Mann-Whitney U Test	.036	Reject the null hypothesis.
4	The distribution of D_Personal is the same across categories of one_two.	Independent-Samples Mann-Whitney U Test	.038	Reject the null hypothesis.

a. The significance level is .050.

b. Asymptotic significanct difference is displayed in C_Social and D_Personal by sig. level of .036 and .038 respectively

Table 1.1 presents the results of the Mann-Whitney U test comparing the scores of non-addicted (group 1) and moderately addicted (group 2) students in terms of social issues and personal issues. The sample size for this analysis was N = 31.

For social issues, the Mann-Whitney U test yielded a test statistic of 626.000 (Wilcoxon W = 1122.000), indicating a significant difference between the non-addicted and moderately addicted groups (p = .036, two-sided test). The mean score for social issues was higher in the moderately addicted group (M = 36.19, SD = 1.19) compared to the non-addicted group (M = 26.81, SD = 0.79).

Similarly, for personal issues, the Mann-Whitney U test resulted in a test statistic of 627.000 (Wilcoxon W = 1123.000), indicating a significant difference between the non-addicted and moderately addicted groups (p = .038, two-sided test). The mean score for personal issues was higher in the moderately addicted group (M = 36.24, SD = 1.20) compared to the non-addicted group (M = 26.76, SD = 0.99).

Table 1.2: Comparison of Non-Addicted and Severely Addicted Students on Family, Academic, Personal, and Social Issues

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.[a,b]	Decision
1	The distribution of A_Family is the same across categories of one_three.	Independent-Samples Mann-Whitney U Test	.195[c]	Retain the null hypothesis.
2	The distribution of B_Academic is the same across categories of one_three.	Independent-Samples Mann-Whitney U Test	.065[c]	Retain the null hypothesis.
3	The distribution of C_Social is the same across categories of one_three.	Independent-Samples Mann-Whitney U Test	.161[c]	Retain the null hypothesis.
4	The distribution of D_Personal is the same across categories of one_three.	Independent-Samples Mann-Whitney U Test	.007[c]	Reject the null hypothesis.

a. The significance level is .050.

b. Asymptotic significant differene is displayed in D_Personal by sig.level of .007

c. Null Hypothesis was rejected for D_Personal

Table 1.2 displays the results of the Mann-Whitney U test examining the scores of non-addicted (group 1) and severely addicted (group 3) students in terms of personal issues. The analysis was based on a sample size of N = 8. The Mann-Whitney U test yielded a test statistic of 56.500 (Wilcoxon W = 92.500), indicating a significant difference between the non-addicted and severely addicted groups (p = .007, two-sided exact test). These findings suggest that social media addiction has a substantial impact on personal issues among adolescents.

In terms of personal issues, the mean score was substantially higher in the severely addicted group (M = 11.56, SD = 2.365) compared to the non-addicted group (M = 5.44, SD = 1.121). This difference in mean scores further supports the significant impact of social media addiction on personal issues among adolescents.

Table 1.3: Comparison of Moderately Addicted and Severely Addicted Students on Family, Academic, Personal, and Social Issues

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.[a,b]	Decision
1	The distribution of A_Family is the same across categories of two_three.	Independent-Samples Mann-Whitney U Test	.328[c]	Retain the null hypothesis.
2	The distribution of B_Academic is the same across categories of two_three.	Independent-Samples Mann-Whitney U Test	.234[c]	Retain the null hypothesis.
3	The distribution of C_Social is the same across categories of two_three.	Independent-Samples Mann-Whitney U Test	.645[c]	Retain the null hypothesis.
4	The distribution of D_Personal is the same across categories of two_three.	Independent-Samples Mann-Whitney U Test	.130[c]	Retain the null hypothesis.

a. The significance level is .050.

b. Asymptotic significance is displayed.

c. Exact significance is displayed for this test.

Table 1.3 presents the results of the Mann-Whitney U test conducted to compare moderately addicted (2) and severely addicted (3) students in terms of family, academic, personal, and social issues. The analysis did not reveal any significant differences between the two groups in any of the dimensions. Although the mean scores were higher in the severely addicted group compared to the moderately addicted group, the differences were not statistically significant at the given significance level. The sample size for this pair of comparisons was 8.

Table 2.1 Coefficients for Regression Analysis

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.011	.020		-.550	.583
A_Family	1.001	.001	.397	867.845	.000
B_Academic	1.001	.002	.285	552.127	.000
C_Social	.992	.007	.067	132.999	.000
D_Personal	1.001	.001	.430	758.155	.000

a. Dependent Variable: YPI

Table 2.1 presents coefficients derived from a regression analysis examining the relationship between predictor variables and the dependent variable "YPI" (Youth Problem Inventory). The "Constant" value of -.011 represents the expected YPI when all predictors are zero. Among the predictors, "D_Personal" exerts the most substantial influence on YPI (Beta = .430), followed by "A_Family" (Beta = .397) as the second most impactful predictor. "B_Academic" also positively influences YPI (Beta = .285), albeit to a slightly lesser extent. "C_Social" has the smallest impact on YPI (Beta = .067). Importantly, all predictor variables are highly statistically significant ($p < .001$), underscoring their strong associations with YPI. These coefficients provide valuable insights into the relative contributions of each predictor variable to youth problem inventory, shedding light on their significance within the context of the analysis.

Table 2.2 ANOVA for Regression Analysis

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	82120.080	4	20530.020	2031055.848	.000[b]
	Residual	.960	95	.010		
	Total	82121.040	99			

a. Dependent Variable: YPI
b. Predictors: (Constant), D_Personal, A_Family, C_Social, B_Academic

The presented ANOVA table encapsulates the results of a regression analysis that explores the relationship between predictor variables (Constant, D_Personal, A_Family, C_Social, B_Academic) and the dependent variable "YPI" (Youth Problem Inventory). The "Regression" section of the table reveals a highly significant F-statistic (2031055.848, $p <$ .001), indicating that the predictor variables collectively explain a substantial amount of variance in YPI. The "Residual" section represents unexplained variance, while the "Total"

section quantifies the total variance in the dependent variable. This ANOVA underscores the statistical significance of the regression model, affirming that the combined influence of the predictor variables significantly contributes to the variability observed in YPI.

DISCUSSION

Our study delved into the intricate interplay between social media addiction and various dimensions of adolescent issues, encompassing family, academic, personal, and social domains. Utilizing the SMAS-SF scale, we categorized participants into three groups based on their addiction status: non-addicted, moderately addicted, and severely addicted students. Employing the Mann-Whitney U test, we explored disparities in adolescent issues across these groups.

When comparing non-addicted and moderately addicted students, we uncovered significant disparities in both social issues (p = .036) and personal issues (p = .038). Notably, mean scores for social issues markedly increased in the moderately addicted group (M = 36.19, SD = 1.19) compared to the non-addicted group (M = 26.81, SD = 0.79). Similarly, personal issues exhibited a profound elevation in the moderately addicted group (M = 36.24, SD = 1.20) relative to the non-addicted group (M = 26.76, SD = 0.99). When exploring the contrast between non-addicted and severely addicted students, we observed a significant difference in personal issues (p = .007). The mean score for personal issues showed a marked elevation in the severely addicted group (M = 11.56, SD = 2.365) compared to the non-addicted group (M = 5.44, SD = 1.121). While investigating the divergence between moderately addicted and severely addicted students, we did not register statistically significant disparities in the dimensions under scrutiny. However, it is noteworthy that mean scores in the severely addicted group tended to surpass those of the moderately addicted group, indicating a potential continuum of challenges faced by both groups across family, academic, personal, and social domains. These findings substantiate the growing body of literature emphasizing the profound ramifications of social media addiction on adolescent well-being and academic attainment.

In seeking to understand the reasons behind addiction among young teenagers, it is crucial to consider the challenges they face. While many studies and recommendations emphasize restricting children's screen time and the need for parental and educator guidance to minimize addiction, comprehending why addiction occurs in young adults necessitates a closer examination of their personal and social circumstances.

Within the realm of familial issues, our research uncovered that a significant proportion of students strongly related to statements like, "My parents insist on their consent for everything I do," "My parents experience conflicts in their relationship," "My parents have high expectations of my performance," and "My parents closely monitor my activities." These statements shed light on the phenomenon of "helicopter parenting" in the Indian context. Although no statistically significant difference emerged in this dimension, it is vital to recognize how it contributes to self-esteem issues and personal distress, as it is prevalent throughout the entire study population.

Regression analysis revealed that family-related issues play a pivotal role in teenagers' overall life problems, as measured by the Youth Problem Inventory. Surprisingly, students displayed a high level of self-awareness and personal responsibility when it came to academic issues, indicating their capacity to cope with them effectively.

In terms of social issues, the statement that resonated most with students was, "Despite my desire to interact with others, I often hesitate." This underscores the complexities of their social dynamics.

Turning our attention to personal issues, statements that strongly correlated with students' experiences included: "Family and personal incidents deeply sadden me" and "I worry about my current situation."

Remarkably, regardless of whether students were moderately or severely addicted to social media, they consistently identified with one statement: "I see social media as an escape." The regression analysis conducted to assess the responses aligns with how problems in adolescents' lives can lead to addiction. The standardized coefficient (Beta) values indicate the relative strength of each predictor's impact on the dependent variable, overall youth problem severity.

In this analysis, the predictor variable with the highest standardized coefficient is "personal problems" with a Beta of 0.431. This underscores the substantial impact of personal problems on overall life problems compared to other variables considered. Notably, "family problems" also exert a significant impact, as indicated by a Beta of 0.395. In contrast, "academic problems" and "social problems" exhibit lower Betas, signifying their lesser influence on overall youth problems.

In our study, we unearthed a significant positive correlation between the problems faced by adolescents and their susceptibility to social media addiction. It became evident that the more pronounced personal and social problems a child experiences, the higher the likelihood of addiction to social media. This revelation underscores the intricate connection between adolescent issues and the allure of social media platforms. Furthermore, through the power of regression analysis, we pinpointed family problems and personal problems as the two dimensions wielding substantial influence over an adolescent's overall life challenges. Essentially, these two dimensions serve as the breeding grounds for most of the difficulties encountered during adolescence.

Taking this knowledge a step further, we unveil a cohesive narrative: addiction arises from adolescent problems, and adolescent problems, in turn, find their roots in family and personal issues. (Huang 2023) highlights the influential role of parenting style in a child's self-esteem development. Specifically, it underscores that certain parenting styles, characterized by rejection and over-protectiveness, can lead to a child's continued self-denial and contribute to lower levels of self-esteem. This finding accentuates the interconnection between family dynamics and personal problems in children, suggesting that family-related issues can serve as a foundational source for the emergence of personal challenges in adolescents. (Morelli et al. 2022) illuminated the reciprocal nature of the family-child relationship. Morelli emphasized the critical role of addressing non-violent everyday negative family processes in curbing child behaviour problems within families. These processes encompass everyday instances of blame, criticism, non-acceptance, and favouritism—patterns that are not uncommon in Indian family dynamics.

This insight sheds light on the indirect link between family problems and a child's inclination toward social media addiction. When family dynamics contribute to lower self-

esteem or behavioural issues in children, (Best et al. 2014) these adolescents seek to fill that void and explore their identity in a safe environment, which social media platforms provide.

CONCLUSION

In conclusion, our study unravels a complex relationship between social media addiction and the multifaceted challenges faced by adolescents. We found compelling evidence that personal and social issues strongly correlate with susceptibility to social media addiction. The more pronounced these issues, the higher the likelihood of addiction. Our regression analysis highlights the pivotal roles of family and personal problems as significant contributors to overall adolescent life challenges. Notably, parenting styles play a critical role in shaping personal issues in adolescents.

Furthermore, it illuminates the reciprocal nature of family-child relationships, underscoring how everyday negative family processes can contribute to adolescent behavioural and personal problems. This insight sheds light on the indirect link between family problems and a child's inclination toward social media addiction. When family dynamics contribute to lower self-esteem or behavioural issues, adolescents turn to social media as a safe space for self-discovery.

Our findings carry substantial implications. They emphasize the need for a holistic approach in addressing adolescent issues, involving parents, educators, and mental health professionals. As we continue to explore the long-term effects of social media addiction on well-being, proactive interventions are imperative to foster a balanced and accepting environment among children to prevent addiction in their adolescence. Safeguarding their holistic well-being remains a paramount concern for all stakeholders.

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Conflict of Interest
The author(s) declared no conflict of interest.