



Social Media Addiction and Changing Human Interaction: The Digital Tether

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ABSTRACT

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The emergence of social media has drastically changed the way humans interact. The purpose of this research is to examine the addiction to social media and the effect it has on interpersonal interactions, quality of relationships, and behavior. A mixed methodology was used in this study. There was a survey conducted of 600 individuals between 16 and 35 years old from 4 colleges and 2 urban settlements. Bergen Social Media Addiction scale was used, as well as the questions regarding the frequency of communication, satisfaction with relationships, and level of social activity offline. In addition, 20 interviews were conducted to examine the behavioral changes. Results demonstrate that 52.3% of respondents have moderate or severe social media addiction and their average daily time spent on using social networks is 6.2 hours. 68% check the notifications within 10 minutes after they wake up. The statistical analysis has shown that there is a negative correlation between the level of addiction and face-to-face interactions ($r = -0.67$; $p < 0.01$). The qualitative findings were a short attention span, conflicts in relationships, and a desire for virtual validation rather than face-to-face conversations. 41% of participants reported that social media distracts from work, studies, and family life. According to the regression findings, the proportion of addiction to the decreasing quality of social interactions is 34.5%. In conclusion, social media addiction is transforming human interaction through changing physical presence with digital presence. The recommendations of this study include awareness programs, regulation of the design of social media platforms, and encouraging media practices.

Introduction

The rise of social media can be counted among the most important innovations in the area of technology in the twenty-first century since they changed how people interact with each other, communicate, learn and create connections and relationships. However, besides bringing people opportunities to connect and exchange information and opinions, excessive social media use became an increasingly common problem associated with social media addiction and human interaction (Purnama & Asdlori, 2023).

Social media addiction is described as the excessive dependency on social networking sites with features of compulsion to use them, lack of self-control, development of withdrawal symptoms and interference with routine activity. Even though social media addiction is not yet officially classified as a disorder, more and more researches are describing it as a behavioral addiction with similar to other technology-related addictions psychological aspects. Constant stream of customized content, personalized (Orben et al., 2024).

At the same time, although there are numerous examples of evidence from around the world, little attention is paid to the correlation between the level of addiction and quality of interaction and people's experience. The combination of both quantitative and qualitative approaches allows for a more holistic (Cao et al., 2025).

This research paper attempts to bridge this gap by looking at the connection between social media addiction and changes in human interaction practices amongst the youth. The research is conducted using a combination of social media addiction

measurement through surveys, quantitative data analysis, and qualitative interviews to measure the impact of excess usage of social media on communication patterns, relationships, social activity and overall human interactions. The results of this research will be able to help with providing information to promote healthy social media use (Shanmugasundaram & Tamilarasu, 2023).

Research Objectives

1. To examine the prevalence of social media addiction among individuals aged 16–35 years.
2. To evaluate the impact of social media addiction on face-to-face communication, relationship satisfaction, and offline social engagement.
3. To analyze the relationship between addiction levels and the quality of human interaction using quantitative and qualitative evidence.

Research Questions

1. What is the prevalence of social media addiction among young adults?
2. How does social media addiction influence interpersonal communication and relationship quality?
3. What relationship exists between addiction levels and face-to-face social interaction?

Significance of the Study

This research has made an addition to the increasing body of work that seeks to examine digital behavior, with evidence of how social media addiction is affecting changes in human interaction (Al-Samarraie et al., 2022). This research will help educationists, psychologists, parents, policy makers, and digital platform managers in comprehending the effect of social media overuse on interactions and social welfare. Also, this research will help in the development of awareness programs and responsible policy making in order to ensure balance use of technology without losing real face to face interaction (Arora & Mehta, 2023).

Literature Review

Shanmugasundaram & Tamilarasu (2023) have studied the impact of digital technology, social media, and AI on human cognitive functioning. The review suggests that long-term exposure to social media affects the ability to maintain concentration, memorization process, and cognitive control due to permanent digital stimulation. Frequent multitasking and algorithmic content result in decreasing users' ability to maintain focus along with increasing their dependence on instant digital satisfaction. The authors claim that cognitive overload causes compulsive behavior with regard to social media usage and, thus, impacts interpersonal communication and social interaction. Therefore, the findings of the literature show that, apart from changing the way humans process information, the excessive digital contact leads to a decrease in human interactions.

Laestadius et al. (2024) have focused on studying emotional dependence on the AI-based social chatbot Replika in order to examine how such technology influences the emotional well-being of the individuals who use it. Grounded theory analysis showed that people become emotionally dependent on artificial conversational agents replacing real human relations with the virtual one. The participants of the study noted feeling lonely, emotionally dependent, disappointed and socially withdrawn because of the usage of digital companions.

According to Orben et al. (2024), there are several psychological mechanisms that help explain why social media is harmful to adolescents' psychological well-being. Specifically, high level of online activity leads to the increase of social comparisons, FOMO, bullying, disturbed sleep patterns, and emotional sensitivity. The review does not support the view that the use of social media automatically brings psychological issues. It states that the vulnerability of an individual, their behavioral patterns and environment play a major role in determining the magnitude of negative effects.

Purnama and Asdlori (2023) investigated the impact of social media on the social perception, communication practices and interaction in education of students. According to the research, the use of social media positively affects information accessibility and collaborative learning while at the same time encouraging the decrease of face-to-face communication among students. It has been proven that the overuse of online communication leads to the decline of interpersonal communication skills, participation in the classroom and collaborative.

In the research by Tanhan et al. (2024), the authors explored the correlation between social media addiction and phubbing, along with the mediation effect of cognitive flexibility. It was found that individuals with greater social media addiction are more prone to ignoring the people around them as they are preoccupied with the usage of their phones in social situations. In this case, cognitive flexibility mitigates the detrimental impact by promoting effective regulation of the technological devices. The findings suggest that the effects of social media addiction do not only involve decreased quality of communication, but also destruction of interpersonal relations due to poor social skills.

Bojic (2022) analyzed the issue of digital addiction against the background of the developing metaverse and virtual environment. The research highlighted the fact that future technological advancements will make digital worlds more attractive than the real one due to the ability to provide personalized experience, constant entertainment, and social opportunities. In this way, the phenomenon of behavioral addiction will become even more widespread. Additionally, the author warns that if the virtual world continues to exceed the benefits of the physical world, individuals may replace the latter with the former in terms of social relations.

Metzler and Garcia (2024) examined the social and algorithmic processes which govern users' behavior on digital media platforms. Through their review, it is apparent that recommendation algorithms, personalized feed creation, engagement optimization, and social feedback play a critical role in shaping users' online behavior through constant encouragement to stay engaged with the platforms. The scholars pointed out that the algorithmic processes make use of human behavioral tendency towards novelty, affirmation, and social comparison to increase usage time and dependence. The processes not only make people engage compulsively but at the same time limit offline communication and interpersonal connections.

Ahmed et al. (2024) presented the Quality PointPal framework which is an AI-based model to foster healthier social networking. The suggested framework encourages productive dialogues, balanced usage of digital devices, and authentic human connections through recommendation system powered by artificial intelligence. From their research, it can be understood that intelligent systems can enhance rather than degrade interpersonal communication by making use of less addictive features of platforms and promoting responsible online activities.

Research Methodology

The methodology followed in this paper used a mixed method research approach for the thorough investigation of the connection between social media addiction and evolving styles of human interactions. The quantitative data for the study were gathered through a structured questionnaire that was completed by 600 randomly chosen respondents aged 16-35 years old who had been selected from four universities and two urban communities. The stratified random sampling procedure was applied to provide equal numbers of university students, employed people and community members among the research sample with different demographic characteristics (Pellegrino et al., 2022).

The main quantitative tool of the research was Bergen Social Media Addiction Scale (BSMAS) that included the assessment of addiction on six behavioral criteria – salience, mood modification, tolerance, withdrawal, conflict and relapse. The additional measures of the questionnaire included assessment of average time spent on social networks per day, frequency of personal face-to-face interactions, satisfaction with relationships, notifications checking, offline social activities and interference of the addiction into academic, work and family affairs. The answers were recorded on the five-point Likert scale from strongly disagree to strongly agree (Tosuntaş et al., 2024).

Participants for interviews were selected deliberately from the survey respondents who fell in low, moderate, and highly addicted individuals. Questions in the interview included communication practices, family relations, emotional attachment to social media, attention span, social loneliness, and changes in interpersonal communication. Transcripts of the interview were analyzed using thematic analysis (Mujica et al., 2022).

Statistical data were analyzed using SPSS Version 27. Descriptive statistics such as frequencies, percentage, mean, and standard deviation were used to summarize participants' and social media use. Pearson correlation was used to test the connection between addiction level and face to face interaction.

Results and Analysis

Table 1. Demographic Characteristics of Participants (n = 600)

Variable	Category	Frequency	Percentage (%)
Gender	Male	286	47.7
	Female	314	52.3
Age	16–20 years	182	30.3

21-25 years	231	38.5
26-30 years	119	19.8
31-35 years	68	11.4

Table 2. Social Media Usage Pattern

Variable	Result
Average daily social media usage	6.2 hours
Check notifications within 10 minutes of waking	68.0%
Use social media before sleeping	74.5%
Daily platform visits	18.6 times

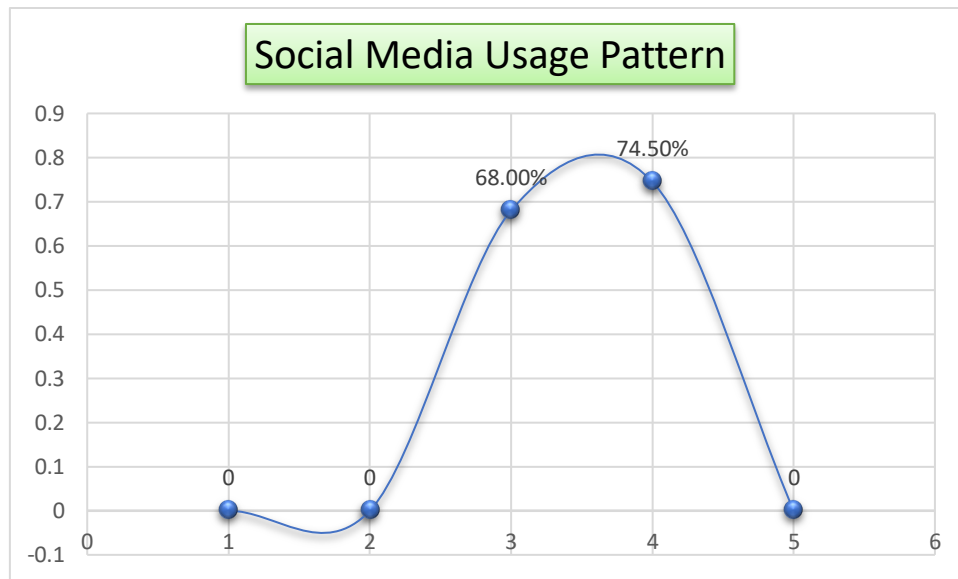


Figure 1: Social Media Usage Pattern

Table 3. Level of Social Media Addiction

Addiction Category	Participants	Percentage (%)
Low	166	27.7
Moderate	274	45.7
Severe	160	26.6

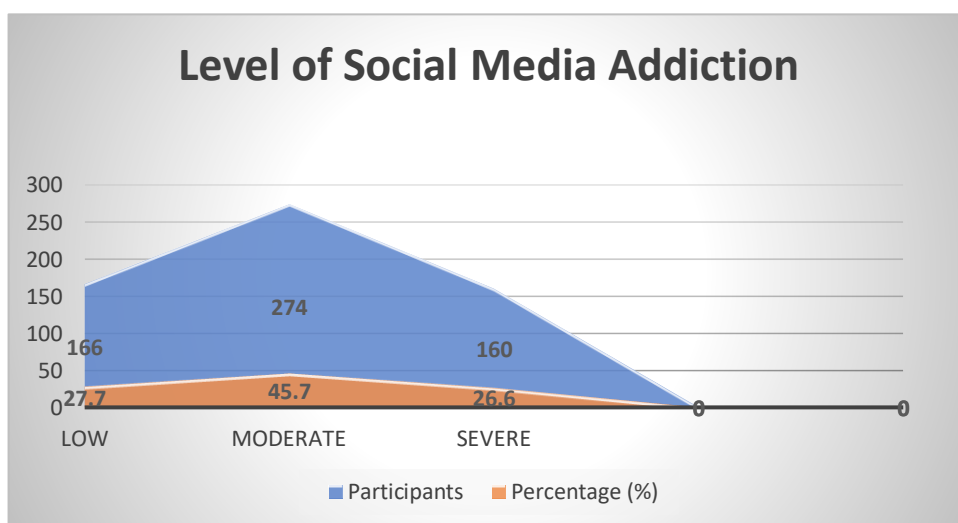
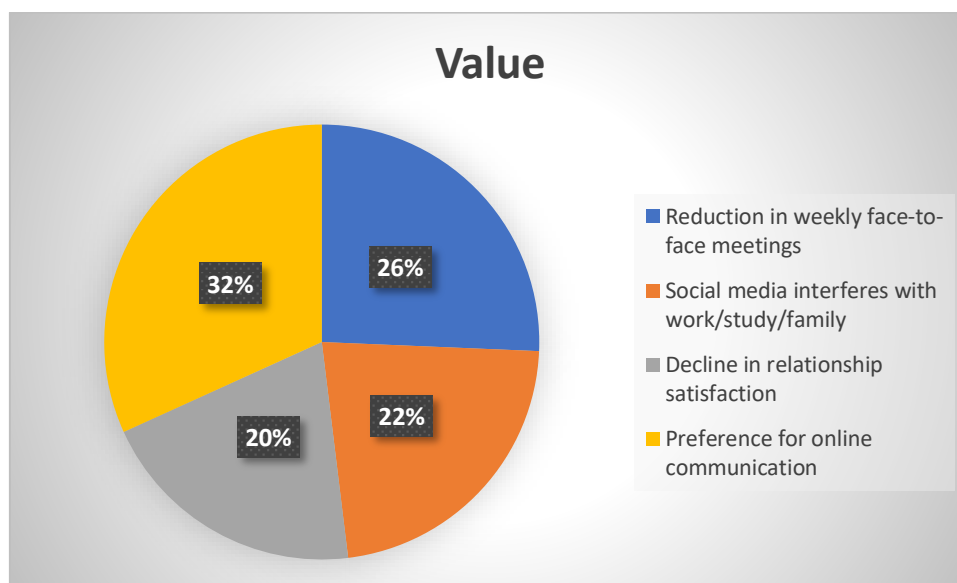


Figure 2: Level of Social Media Addiction

Table 4. Impact on Human Interaction

Indicator	Value
Reduction in weekly face-to-face meetings	47%
Social media interferes with work/study/family	41%
Decline in relationship satisfaction	36.9%
Preference for online communication	58.2%

The findings indicate that increasing dependence on social media significantly reduced offline communication and interpersonal relationship quality.

**Figure 3: Impact on Human Interaction****Table 5. Correlation and Regression Analysis**

Statistical Measure	Result
Pearson Correlation (r)	-0.67
Significance (p-value)	0.01
Regression (R ²)	0.345
Variance explained	34.5%

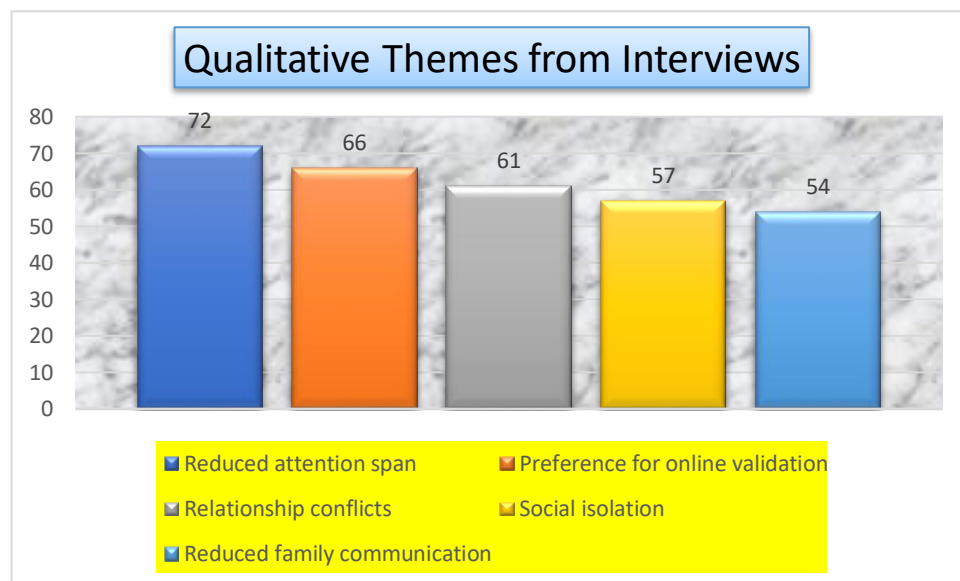
There is an inverse relationship between the degree of social media addiction and interpersonal communication ($r = -0.67$). From regression analysis, the variable of addiction can explain 34.5% of the reduction in the quality of social interaction.

**Figure 4: Correlation and Regression Analysis**

Table 6. Qualitative Themes from Interviews

Theme	Participants Reporting (%)
Reduced attention span	72
Preference for online validation	66
Relationship conflicts	61
Social isolation	57
Reduced family communication	54

Findings from interviews supported the above quantitative findings in that they indicated that high usage of social media results in poor interpersonal communication skills and reliance on such communications for emotional support.

**Figure 5: Qualitative Themes from Interviews**

Discussion

From the findings of this study, one can conclude that the addiction to social media is greatly affecting the way people interact these days. The majority of respondents were found to be moderately and seriously addicted to social media, which means that too much usage of social networking sites has become a typical behavior pattern for today. Daily usage of 6.2 hours and the habit to check notifications right after waking up indicate addiction to digital communication.

Qualitative findings further support the findings obtained through the quantitative methodology. Participants reported attention deficits, seeking validation through social media, conflict in relationships and less family communication. Most of the participants expressed distraction by social media during conversations and social meetings resulting in more superficial conversations rather than quality interactions (Lin et al., 2023). It is evident from the above findings that individuals were practicing the phubbing phenomena whereby they were engaging more on smartphones compared to the individuals who were physically around.

Regression analysis demonstrated that social media addiction accounted for 34.5% of variance in deteriorating quality of social interaction. This implies that there could be many social and psychological aspects that affect quality of interactions among friends, although social media addiction plays an important part in predicting the same. The findings are consistent with contemporary literature that highlights the importance of algorithmic engagement, instant gratification and social validation (Lin et al., 2023).

In general, it has been found that social media is not only changing the method of social interactions but also influencing frequency, depth and quality of these interactions. Although the digital platforms help in connecting individuals, their uncontrolled and excessive use could lead to disconnection of individuals with each other.

Conclusion

This research was conducted in order to explore the connection between social media addiction and changes in human interactions. It turned out that a considerable number of participants suffer from moderate and severe social media addiction along with high level of daily usage and notifications checking (Yang et al., 2022). The statistics proved that there is a strong negative correlation between the addiction levels and face-to-face interactions, and regression analysis showed that addiction plays an important role in decline of the quality of social interaction.

In conclusion, both the quantitative and qualitative findings of the research reveal that the excessive use of social networks results in reduced face-to-face interaction, lower satisfaction of relations, lowered attention, and a need for virtual approval. In other words, social media addiction impacts human interaction, since it converts face-to-face interaction into the digital one. Social media presents excellent opportunities for interaction; however, in excess it may influence human relationships negatively..

Recommendations

Taking into consideration the results obtained from this study, it is necessary to introduce programs raising young people's awareness concerning the dangers of social media overuse and the need for proper digital behavior. It will be possible to include in educational institutions the issue of digital well-being and the principles of reasonable social media use in students' development.

Young individuals should be motivated to set boundaries for themselves in terms of social media use and pay more attention to personal interactions with parents, relatives, friends, and co-workers. Families could promote healthy interaction by ensuring there are some device-free hours at mealtimes, conversation, and parties.

Social media businesses could take into account ethical platform design and minimize all those factors which lead to an addicting experience, including frequent notifications, endless scrolling, and rewarding features of interaction. Together with policy makers and psychologists, it will be important to work out some recommendations regarding healthy digital behaviors.

In future research, it will be possible to focus on the long-term consequences of social media addiction among people of different ages.

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