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# CORELATIONAL RESEARCH ON MOBILE ADDICTION AND INTERPERSONAL RELATIONSHIPS AMONG YOUNG ADULTS

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## ABSTRACT

This study explores the relationship of mobile addiction on interpersonal relationships among 125 young adults aged range between 17 to 30 years. By using the FIAT-Q-SF to assess relationship quality and the MPDQ to measure mobile phone dependence, the research reveals a significant Pearson correlation coefficient of .997. Findings indicate that excessive smartphone use leads to diminished communication skills, increased conflict, and reduced quality time with loved ones. The study highlights the need to address mobile addiction to safeguard meaningful human connections in the digital age, emphasizing the importance of balancing technology use with maintaining strong interpersonal bonds.

Keywords: ***Mobile phone, interpersonal relationships, addiction, technology.***

### INTRODUCTION

Mobile addiction is the excessive use of smartphones despite knowing their negative effects on one's physical, social, financial, and psychological well-being. This addiction is akin to substance use disorders but involves compulsive behaviors rather than a physical substance. It can affect cognitive, psychological, physical, and emotional development, reducing quality of life and future prospects.

**Causes of Mobile Addiction**

1. Environment: Children often mimic adults' behaviors, including excessive phone use.

2. Instant Gratification: Smartphones provide immediate access to information and entertainment, stimulating the brain's reward system.

3. Fear of Missing Out (FOMO): Social media creates anxiety about missing out on experiences, driving constant phone checking.

4. Escapism: Phones offer a distraction from stress and unpleasant emotions.

5. Unlimited Access: Easy availability and affordable data plans make it hard to limit usage.

6. Peer Influence: Social pressure can lead to excessive phone use.

7. Changes in Brain Chemistry: Phone use affects dopamine pathways, similar to substance abuse.

**Medical Conditions Contributing to Addiction**

Depression: Increased phone use as an escape can worsen depressive symptoms, anxiety Disorder: Obsessive phone use can exacerbate anxiety, chronic Illness: Individuals with chronic illnesses may use phones excessively for health information.

**Symptoms of Mobile Addiction**

Excessive Use: Loss of time sense while using the phone, compulsive Checking: Constantly checking the phone due to boredom or FOMO, escapism: Using the phone to avoid real-life challenges, withdrawal Symptoms: Irritation and anxiety when unable to use the phone, neglecting Responsibilities: Ignoring duties in favor of phone use, interference with Sleep: Phone use leading to poor sleep patterns. physical Symptoms: Eye strain, headaches, and poor posture.

**Risk Factors for Mobile Addiction**

Lack of Awareness: Not recognizing the negative impacts of excessive use, age: Younger individuals are more susceptible due to social media use, mental Health Conditions: Those with anxiety, depression, or ADHD are more prone to addiction, early Exposure: Early use of technology increases addiction risk, social Pressure: Societal expectations can drive excessive phone use, technology Design: Features like notifications and infinite scrolling are designed to keep users engaged.

**Treatment for Mobile Addiction**

Treatment mainly involves psychotherapy, such as Cognitive Behavioral Therapy (CBT), which helps individuals recognize and change unhelpful thoughts and behaviors related to phone use.

**Impact on Interpersonal Relationships**

Mobile addiction negatively affects interpersonal relationships by reducing real-world interactions and emotional connections. Families might be physically together but emotionally distant, friendships weaken, and workplace communication suffers.

**Types of Interpersonal Relationships**

1. Interdisciplinary Relationships: Collaboration among professionals from different fields.

2. Intradisciplinary Relationships: Collaboration within the same field.

3. Nurse-Client Relationship: Trust and communication between nurses and patients.

**Factors Affecting Interpersonal Relationships**

Communication: Clear and open communication builds trust and resolves conflicts, trust and Honesty: Trust is crucial for a safe and comfortable relationship, empathy and Understanding: Emotional connection through empathy, respect for Boundaries: Valuing each other's space and freedom, cultural and Social Norms: Understanding cultural differences helps manage relationships, personal Values: Similar values strengthen bonds, life Experiences: Past experiences shape relationship dynamics, conflict Resolution Skills: Effective conflict resolution strengthens relationships.

**Theories of Interpersonal Relationships**

1. Social Exchange Theory: Relationships are evaluated based on costs and rewards.

2. Uncertainty Reduction Theory: Communication reduces uncertainty and fosters predictability in new relationships.

**Literature Review**

**Barashdi et al., (2015)** This literature review examines smartphone addiction among university students, focusing on research from 1996 to 2013. It explores symptoms, levels of addiction, underlying problems, and methodological issues. The review also investigates the relationship between smartphone addiction and academic achievement, highlighting differences based on gender, field of study, parents' education, and family income. The paper concludes that using both quantitative and qualitative methods is recommended for a comprehensive understanding of smartphone addiction and its impact on academic performance.

**Chen et al. (2016**) investigated how interpersonal problems mediate the relationship between mobile phone addiction and negative emotions among addicts and potential addicts. Surveying 1089 young adults in China, the study found that both addicts and potential addicts spent more time and money on mobile phones and experienced more negative emotions than non-addicts. Interpersonal problems were a key mediator in the link between addiction levels and negative emotions. The study highlights the mechanisms connecting mobile phone addiction with negative emotions, particularly among those with interpersonal issues, and considers potential addicts as a distinct group.

**Vinayak et al. (2017)** examined the influence of impulsiveness on mobile phone addiction among adolescents aged 14-19, comparing genders. Using the Impulsiveness scale (Barratt, 1995) and the Mobile Phone Addiction scale (Velayudhan & Srividya, 2012), data from 100 adolescents (50 males, 50 females) in Chandigarh were analyzed. The study found a positive correlation between impulsiveness and mobile phone addiction.

**Ranjan et al., (2020)** With smartphones permeating public and private spheres, conflicts escalate alongside opportunities. While youth leverage smartphones to foster social connections, negative impacts on peer relationships surface. Aim and Objectives: 1. To evaluate how smartphone usage influences interpersonal relationships among medical and dental students. 2. To raise awareness about the adverse effects of excessive smartphone usage. Material & Method: A cross-sectional study was conducted at Subharti Medical College and Subharti Dental College. Result: Our survey reveals that mobile phone usage disrupts the bonds between students and their families, prioritizing virtual connections over real-world interactions.

**Among Youth (2020)** explored the benefits and risks of mobile phone use, focusing on addiction among young people, which has been understudied. A survey of 400 youths in Klang Valley revealed moderate levels of mobile phone usage and addiction. The study highlights the need for parents, educators, and policymakers to address the negative impacts of mobile phone addiction.

**Karunanayake et al. (2020)** investigated the impact of mobile phone game addiction on Sri Lankan teenagers, examining effects on academic performance, aggression, self-identity, physical and mental health, and family relationships. The study found that excessive gaming negatively affected academics and physical health, had no significant impact on self-identity and mental well-being, and had a neutral effect on family relationships. Further research is needed to understand the causes of addiction and strategies to help teenagers overcome it.

**Hong et al. (2021)** explored the relationship between social norms, interpersonal relationships, smartphone usage, and addiction among 220 Taiwanese college students using structural equation modeling. The study found that: (1) Smartphone addiction is influenced by diverse social norms; (2) Addiction correlates with different interpersonal relationships and usage patterns; (3) Social norms for smartphone use are linked to various social relations. The findings highlight the role of social reference groups in smartphone behaviors and interpersonal dynamics, helping identify high-risk groups for addiction and suggesting areas for future research.

**Deol et al. (2021)** reviewed literature on the impact of mobile phone use on interpersonal communication among teenage school students. While excessive use can hinder face-to-face interactions, some studies suggest it strengthens relationships through various apps. The paper argues that problematic phone use may lead youths to prioritize devices over in-person interactions. It calls for longitudinal studies to better understand the cognitive and interpersonal effects of overuse, and emphasizes integrating face-to-face communication with technology-mediated interactions.

## RESEARCH METHODOLOGY

**Aim**: To examine how mobile addiction impacts relationships and propose solutions to mitigate negative effects.

### Objectives

1. Investigate the relationship between prolonged mobile device usage and the quality of interpersonal connections.

2. Study the impact of mobile addiction among males and females.

### Hypotheses

**$Ho_1$**: Mobile addiction significantly correlates with interpersonal relationships.

**$Ho_2$**: There is a significant difference in mobile addiction levels between males and females.

**Sample Size**: N=125 individuals (ages 17-30) of both genders.

### Research Design

A correlational research design was used to investigate mobile addiction's effect on young adults' interpersonal relationships. This non-experimental method measures the statistical relationship between variables without manipulation.

### Procedure

Participants were informed about the study and invited to participate via a Google form containing study details and confidentiality measures.

### Data Analysis

Quantitative data was collected from 125 participants over 10 days and analyzed using SPSS. Statistical tools included Pearson Correlation and independent sample T-tests.

**Tools Used**

**Mobile Phone Dependence Questionnaire (MPDQ)**

MPDQ was developed by Chóliz, M. in 2012 as a tool to measure how dependent individuals are on their mobile phones. It consists of 20 questions that evaluate various aspects of mobile phone usage, behavior, and attitudes, and symptoms related to problematic mobile phone use. The MPDQ has been tested using Cronbach's alpha, which showed satisfactory reliability (Cronbach's $\alpha = 0.876$) for TMD, and good internal consistency (Abstinence $\alpha = .85$ and Tolerance $\alpha = .74$) for Abstinence and Tolerance factors. The MPDQ is widely used in both research and clinical settings, where it helps researchers to understand how mobile phone dependence affects individuals' mental health, productivity, and interpersonal relationships. Healthcare professionals also use it to assess and address problematic mobile phone use as part of broader interventions for behavioral addictions or mental health concerns.

**FIAT-Q-SF (Short Form)**

The FIAT-Q is a questionnaire initially designed by Callaghan in 2006. Later, Darrow et al. made some modifications to it in 2014 and created the FIAT-Q-SF. This standardized self-reported questionnaire utilizes a six-Likert scale and includes 32 items to evaluate interpersonal functioning issues. The questionnaire examines fear of intimacy and attachment, which usually deal with discomfort or anxiety about emotional closeness, vulnerability, and reliance in romantic relationships. Respondents use a Likert scale to indicate their level of agreement or disagreement with each item, ranging from "strongly disagree" to "strongly agree." The scores are then computed to determine the person's overall level of fear of intimacy and attachment in romantic relationships. According to Singh and O'Brien's 2017 study, the FIAT-Q-SF has a high level of validity and reliability, with Cronbach's alpha at 0.863.

**Ethical Considerations**

Participants provided informed consent via Google Forms, ensuring the privacy of outcomes.

**Statistical Techniques**

Descriptive statistics, independent sample t-tests, and correlation analysis were used to meet study objectives and test hypotheses.

## RESULT AND DISCUSSION

According to the analysis, there exists an extremely strong positive correlation ($r = 0.997$, $p < 0.01$) between mobile addiction and the quality of interpersonal relationships. This indicates a near-perfect linear relationship between the two variables, meaning that as mobile addiction increases, interpersonal relationship quality tends to increase almost proportionally.

*Table 4.1 Correlation between Mobile phone addiction and interpersonal relationships*

| Variables | Interpersonal relationships ($n_1$ = 125) |
|---|---|
| **Mobile phone addiction ($n_1$ = 125)** | .997** |

This research confirms previous studies that have highlighted the negative effects of excessive mobile device use on interpersonal relationships. The study found a significant positive correlation indicating that individuals with higher levels of mobile addiction tend to have lower-quality relationships.

One explanation for this correlation is that excessive phone use reduces face-to-face interaction and meaningful communication within relationships. Constant engagement with phones can lead to distractions, irritability, and decreased emotional connection during interactions.

Moreover, mobile addiction may intensify feelings of jealousy, insecurity, and mistrust within relationships due to the constant accessibility and immediate communication facilitated by mobile devices. This can result in conflicts and strained dynamics between partners and peers.

These findings underscore the importance of addressing mobile addiction to safeguard the quality of interpersonal relationships. Interventions that promote balanced phone usage and prioritize offline connections may help alleviate these negative impacts. Future research should explore underlying mechanisms and develop targeted interventions to foster positive relationship outcomes in the digital age.

The mean score of 20.6623 for females indicates that, on average, females in the study reported experiencing a moderate level of impact from mobile addiction on their interpersonal relationships. The standard deviation of 10.23617 suggests that there was variability in the scores among the female participants, with some reporting lower levels of impact and others reporting higher levels.

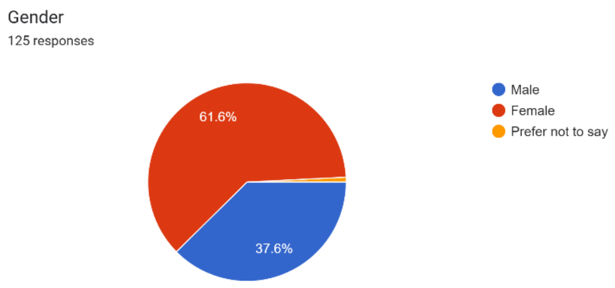
***Table 4.2***

***Mean and SD Score***

| Variables | Mean Scores | SD |
|---|---|---|
| **Male** | 25.91 | 10.23 |
| **Female** | 20.66 | 17.63 |

In contrast, the mean score of 25.9149 for males suggests that, on average, males in the study reported experiencing a slightly higher level of impact from mobile addiction on their interpersonal relationships compared to females. The standard deviation of 12.36199 among males indicates that there was variability in the scores among male participants as well, with some reporting lower levels of impact and others reporting higher levels.

Overall, these findings suggest that both males and females experience a moderate level of impact from mobile addiction on their interpersonal relationships, with males reporting slightly higher levels on average. However, individual differences and personal experiences may influence the extent to which mobile addiction affects relationship dynamics, highlighting the need for personalized interventions and strategies to address this issue.




Among males, the average mobile addiction score is 25.9149 with a standard deviation of 12.36199, while among females, it is 20.6623 with a standard deviation of 10.23617. The calculated t-value is -2.560, and the significance level is .217.

***Table 4.3Independence sample test***

| Variable | male ($n_1 = 77$) | | female ($n_2 = 47$) | | t- value | Significance |
|---|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | assumed | |
| **Mobile addiction** | **25.9149** | **12.36199** | **20.6623** | **10.23617** | **-2.560** | **.217** |

The results suggest a difference in mobile addiction scores between genders, yet this difference is not statistically significant at the .05 alpha level. In other words, while there seems to be a tendency for males to report slightly higher mobile addiction scores, this difference could be due to chance rather than a genuine distinction.

Further exploration with a larger sample size may be necessary to confirm any significant disparity in mobile addiction between males and females. Additionally, considering additional factors such as age, socio-economic status, and cultural background could provide a more comprehensive understanding of mobile addiction tendencies across different demographic groups.

## CONCLUSION

The study examines the relationship between mobile addiction and interpersonal relationships among young adults aged 17 to 30 years. Utilizing Pearson Correlation, the research identifies a noteworthy positive correlation between mobile addiction and interpersonal relationships. This implies that individuals experiencing mobile addiction tend to perceive shortcomings in their interpersonal relationships. The independent T-test was also analysed which indicated that the mean scores for the first group (possibly males) were significantly lower than those for the second group, indicating that males reported experiencing a lesser impact of mobile addiction on their interpersonal relationships compared to females.

**Limitations**

1. The study's sample size was relatively small (125), which may have limited its effectiveness compared to previous research. The findings suggest that individuals with higher levels of mobile phone addiction experience deficiencies in their interpersonal relationships. However, this study lacks substantial evidence to fully support this conclusion.
2. The age range was limited.

**REFERENCES**


Al-Barashdi, H., Bouazza, A., & Jabur, N. (2015). Smartphone addiction among university undergraduates: a literature review. *Journal of Scientific Research and Reports*, 4(3), 210-225.

Chen, C., Shen, Y., Lv, S., Wang, B., & Zhu, Y. (2023). The relationship between self-esteem and mobile phone addiction among college students: The chain mediating effects of social avoidance and peer relationships. *Frontiers in psychology*, 14, 1137220.

Vinayak, S., & Malhotra, M. (2017). Impact of impulsiveness on mobile phone addiction. *Indian Journal of Health and Wellbeing*, 8(10), 1102-1106.

Ranjan, R., Sharma, S., & Ahmad, S. (2020). Exploring Impact of Smart Phones Usage on Interpersonal Relationship of Students in Meerut,(UP). *EXECUTIVE EDITOR*, 11(7), 750.

M. P. A. (2020). Effects of Mobile Phone Usage Behavior and Mobile Phone Addiction among Youth. Sciences, 10(16), 134-145.

Karunanayake, D. D. K. S., Perera, R. A. A. R., & Vimukthi, N. D. U. (2020). Impact of mobile phone game addiction on Sri Lankan teenagers: An exploratory study. *Asian Journal of Education and Social Studies*, 13(4), 61-72.

Hong, F. Y., Lin, C. C., Lin, T. J., & Huang, D. H. (2021). The relationship among the social norms of college students, and their interpersonal relationships, smartphone use, and smartphone addiction. *Behaviour & Information Technology*, 40(4), 415-426.

Deol, R. (2021). Impact of Mobile Phone Use on School Students' Interpersonal Communication. *Turkish Online Journal of Qualitative Inquiry*, 12(6).

Alavi, S. S., Maracy, M. R., Jannatifard, F., Eslami, M., & Rezapour, H. (2012). The psychometric properties of a short form of the Smartphone Addiction Scale among Iranian college students. *International Journal of Preventive Medicine, 3*(4), 221-228.

Igarashi, T., Motoyoshi, T., Takai, J., & Yoshida, T. (2005). No mobile, no life: Self-perception and text-message dependency among Japanese high school students. *Computers in Human Behavior, 21*(1), 231-239.

Matsuda, M. (2000). *Japanese youth and the imaginary village: An ethnographic approach to Internet use in Japan*. Keio Communication Review, 22, 69-82.

Hiscock, R. (2004). Mobile phones: new hazards and new precautions. *British Medical Journal, 328*(7433), 464-465.

Selwyn, N. (2003). *ICT in Non-formal Youth and Adult Education*. International Handbook of Information Technology in Primary and Secondary Education. Springer, Boston, MA.

Walsh, S. P., White, K. M., Hyde, M. K., & Watson, B. C. (2008). Dialing and driving: Factors influencing intentions to use a mobile phone while driving. *Accident Analysis & Prevention, 40*(6), 1893-1900.