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"Relationship between Mobile Phone Usage, Depression and Insomnia in Adults"

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Abstract:

The above titled research will help to study how mobile phone usage relates to depression and insomnia in adults aged 18 to 59. Using standardized tools like the Problematic Use of Mobile Phone Scale, Beck's Depression Inventory, and the Sleep Disturbance Scale Adult By APA, data was collected from 300 participants. The analysis revealed a strong, positive connection between problematic mobile phone usage and higher levels of depression and insomnia. These findings highlight how overuse of mobile phones may contribute to mental health concerns. There's a growing need to raise awareness about the psychological effects of constant mobile use. Promoting healthy digital habits is essential. Future studies could include factors like anxiety or stress, and also look into different age groups and genderbased differences for deeper understanding.

Key Words: Mobile Phone usage, Depression, Insomnia, Night Mobile Watching **Introduction:**

Mobile phone usage is increasing day by day as it offers numerous benefits, its overuse is becoming a significant concern due to its psychological implication. Research has identified strong correlations between excessive problematic mobile phone usage with issues such as depression and insomnia. Edwards (2023)stated that ,although mobile phones provide convenience, their excessive use has been linked to problems such as traffic accidents ,reduced physical activity, and poor academic performance .similarly , Edwards (2023), although mobile phones provide convenience, their excessive use has been linked to problems such as traffic accidents, reduced physical activity, and poor academic performance. Similarly, Carter (2019) highlights the growing concerns surrounding "mobile phone addiction," especially as both youth and adults have reported rising mental health problems in line with increased mobile phone usage over the past decade.

Rosen (2014) emphasizes that excessive use negatively impacts mental health and behaviour, calling for urgent intervention to address this growing addiction .Griffiths (2017) notes that social networking platforms are often confused with broader social media, a distinction critical for research accuracy. Kong (2021) specifically linked parent child relationship with mobile phone usage if the relationship is week child tend to use mobile on

higher levels. Salehin (2021) further explains that excessive phone use is associated with behavioral changes and biochemical alterations in the brain, including changes in cortisol, cytokines, and serotonin levels. Alqadhub (2018) conducted a survey using Beck's Depression Inventory, confirming that higher smartphone addiction scores significantly correlate with higher levels of depression. Wang et al. (2019) specifically linked depression to addiction to mobile gaming, social media, and information consumption.

Thomee (2021) added that phone overuse not only impacts psychological well-being (e.g., poor concentration, mood disturbances) but also results in physical symptoms such as fatigue and headaches. Insomnia, often linked to excessive phone use, is described by Gooneratne (2015) as a chronic sleep disorder characterized by disrupted sleep, reduced energy, and impaired daytime function. Despite 35–49% of U.S. adults reporting sleep difficulties, only 4–22% meet clinical diagnostic criteria. Exelmans (2016) emphasizes that mobile phone use before bedtime is associated with reduced sleep quality and poorer sleep outcomes. The adverse effects of screen exposure on sleep can be explained through three primary mechanisms. Cajochen et al. (2011) and Chellappa et al. (2013) note that blue light emitted from screens suppresses melatonin production, a hormone essential for sleep. Adam et al. (2007) and Hysing et al. (2015) confirm that this hormonal disruption leads to delayed sleep onset. Furthermore, unstructured media use often displaces sleep time, particularly among youth (Anderson et al., 2010; Harrison & Cantor, 1999). Exposure to violent or sexual content also induces psychological arousal, making it more difficult to fall asleep.

Chun (2017) describes depression as involving persistent sadness, cognitive impairments, and sleep disturbances, all of which are worsened by excessive mobile phone use. Mei (2017) found that increased engagement with phones and social media exacerbates depression due to factors like negative social comparison and cyberbullying. Jun (2016) adds that social media usage can lead to lower self-esteem and heightened depressive symptoms. Hagberg (2011) explains that phone overuse disrupts the brain's dopamine regulation, leading to anhedonia, a core symptom of depression.

Horwood (2018) reports that 54% of individuals prioritize phone use over sleep, and 34% experience sleep deprivation due to mobile phone engagement. Barkley and Lepp (2016) also found that sedentary behaviour associated with phone use correlates with poor sleep quality.

However, Anglim (2018) notes that implementing sleep hygiene practices—such as screen curfews and night mode settings—can mitigate these negative effects.at glance it is confirmed that excessive mobile phone use has been consistently associated with both psychological (depression, mood disturbances) and physiological (insomnia, fatigue) problems. These findings highlight the urgent need for increased awareness and preventive strategies to manage mobile phone overuse and its impact on mental health.

Method:

Participants:

Data collection was done by Male and female of age group above 18 years of age (adults).Total number of participants taken for research were 300 Inclusion Criteria of the participants was 18 years and above and Exclusion Criteria of the participants was below 18 years .

Measures or Tools used for assessment were:

Problematic use of Mobile Phone Scale (PUMP) developed by Dr. Merlo it is a psychological tool designed to access the excessive usage of mobile phone which can lead to various psychological & behavioral consequences published in year 2013. Becks Depression Inventory (BDI) is developed by Aaron T. Beck in 1996. It is a widely used self-report measure designed to assess the severity of depressive symptoms in individuals, The Sleep Disturbance Scale developed by Daniul and published by the American Psychological Association (APA) is a psychological tool designed to assess the presence and severity of sleep disturbances in individuals.

Procedure

Procedure for research is as follows: Male and female of age group above 18 years of age (adults) will be considered for the research. All the information with the consent of participants will be taken in the form of google forms. All the demographic contents like Name, Age, Gender, and Qualification will be considered from the participants. Tools that will be used for data collection are as follows:

- 1. Problematic use of Mobile Phone Scale (PUMP).
- 2. Beck's depression inventory
- 3. Sleep disturbance skill adult by APA.

Scoring will be done according to manual. The research will utilize Correlational statistics to analyse the data .The study will employ techniques such as Pearson product moment correlation and Spearman's Rho correlation.

• **Results**

Correlation Results Table NO : 1

	Mobile Phone		
	Usage	Depression	Insomnia
Mobile Phone	1		
Usage			
Depression	.603**	1	
Insomnia	.256**	.461**	1

Mobile Phone Usage & Depression: r = 0.603 so it is Moderate to strong positive correlation .Mobile Phone Usage & Insomnia: r = 0.256 so it is Weak to positive correlation. Depression & Insomnia: r = 0.461, so it is Moderate to positive correlation. Hypotheses stated were as follows:

1. "Increased or Higher mobile phone usage is positively correlated with insomnia"

- 2. Increased or Higher mobile phone usage is positively correlated with depression.
- 3. Increased depression is positively correlated with insomnia in individuals who use higher level of mobile phones.

In this research Pearson's Product Moment correlation is used for Mobile Phone Usage correlational analysis and Spearman's Rho Collation is used to study Depression and Insomnia.

Discussion

Main objectives of study were 1. To study mobile phone usage leading to depression and insomnia, 2.Higher level of mobile phone usage causes depression and 3. Higher level of mobile phone usage leading to Insomnia study aimed to examine the relationship between mobile phone usage, insomnia, and depression. The findings revealed a significant positive correlation between higher mobile phone usage and insomnia (r = 0.256, p < 0.01), supporting Hypothesis 1. Similarly, a strong positive correlation was observed between higher mobile phone usage and depression (r = 0.603, p < 0.01), supporting Hypothesis 2. Also depression was found to be significantly and positively correlated with insomnia among individuals with higher mobile phone usage (r = 0.461, p < 0.01), supporting Hypothesis 3. Hence, Overall results suggest that increased mobile phone usage is significantly associated with higher levels of depression and insomnia.

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