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Age, Gender, And Mobile Screen Time: A Cross-Sectional Study

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Abstract

The widespread use of mobile phones has transformed digital engagement across various age groups, influencing both social and behavioral patterns. This cross-sectional study examines the relationship between age, gender, and screen time among residents of Jabalpur city. Data were collected through a structured survey, capturing mobile usage habits across different demographic groups. The findings reveal that younger individuals, particularly those aged 12–28, exhibit the highest screen time, with a significant proportion using smartphones for extended hours. Gender disparities are also evident, with young women showing higher mobile usage than a male counterparts, while middle-aged groups display an inverse trend. Excessive mobile phone use, particularly among adolescents and young adults, raises concerns about potential health risks, including digital addiction, anxiety, and sleep disturbances. The study emphasizes the need for awareness regarding responsible technology use and balanced digital habits. Future research could explore the long-term implications of excessive screen time and interventions for promoting healthier digital behaviors.

Keywords

Mobile phone, screen time, smartphone dependence, mental health, digital well-being, technology and behavior.

Introduction

Mobile phones have become prevalent in all parts of the world, in developed as well as developing countries, and provide an unprecedented source of information on the dynamics of the population on a national scale. [J. Blumenstock. et. al], [De-Sola Gutiérrez J. et. al]). Surveys and studies from the number of countries indicated that the use of mobile phones in young people is increasing rapidly and starting at a younger age. Almost half of the mobile phone users are between 18 and 25 years old. According to data released by TRAI (Telecom Regulatory Authority of India), India had 1019.5 million active mobile phones. Smartphones are the preferred tools for web-based activity, and regardless of age, almost every person

possesses a smartphone ([Marmet S. et. al], [Kessler R. et. al]). Young population is a very sensitive period, wherein many physiological, psychological, and social changes occur, making this age group vulnerable to potential adverse effects of cellphone use, including depressive symptoms, anxiety, and low self-esteem [Kessler R. et. al]. Research on problematic or addictive smartphone use has expanded during the last decade, as the proportion of smartphone users has steadily increased ([Cicero TJ. et. Al], [Emily A. et.al], [Twenge, et. Al], [WHO 2021]). Excessive smartphone use is characterized by maladaptive smartphone use with functional impairment

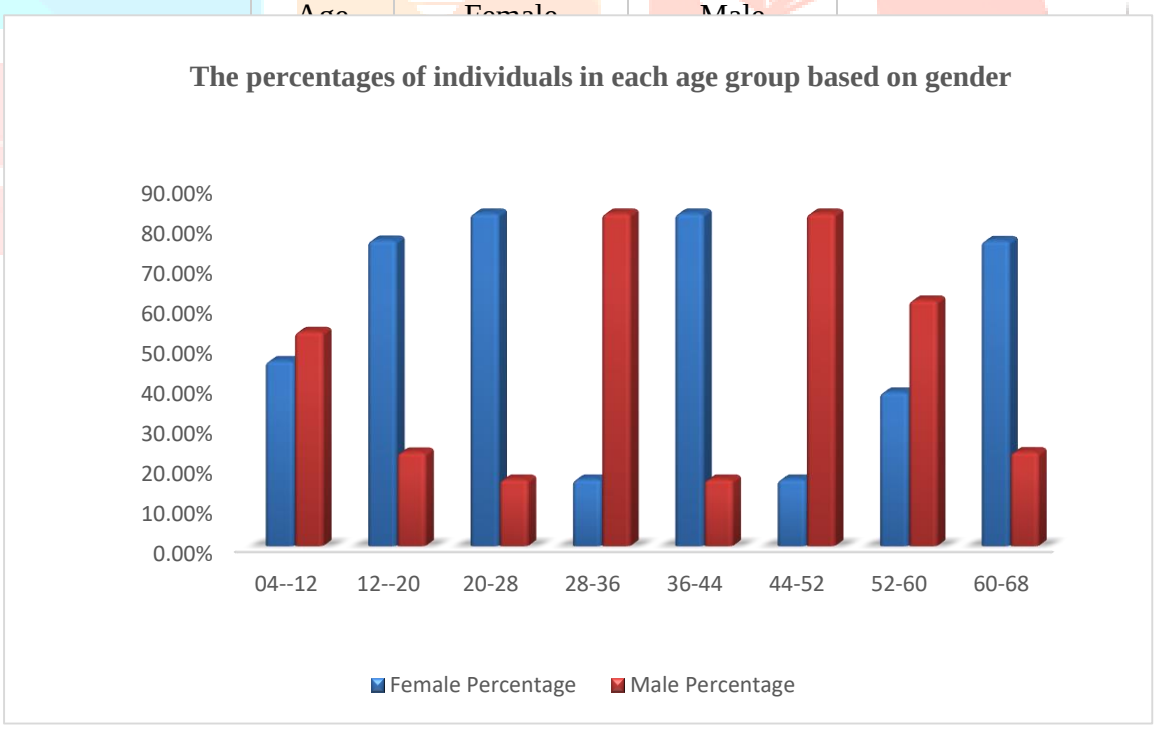
Excessive smartphone use may lead to symptoms commonly observed in substance use disorders, such as tolerance, withdrawal after periods of nonuse, continued use despite adverse effects, and difficulty controlling use ([[Kim S. et.al], [Kim J. et. al]). Moreover, overuse of smartphones has been associated with increased anxiety, depression, poor sleep quality, low self-esteem, and higher perceived stress, as well as other addictions such as addiction to alcohol, tobacco and illicit drugs ([Twenge JM. et. al.], Yu H. et. al], [Karlsson J. et. al]).

Methodology

As per the requirement of the present topic, a survey was conducted among different age groups of Jabalpur city. This study covers an extensive range, keeping in mind to fetch maximum data regardless of gender, education and others. For this purpose a questionnaire was constructed, and the researcher herself approached each individual to collect the data.

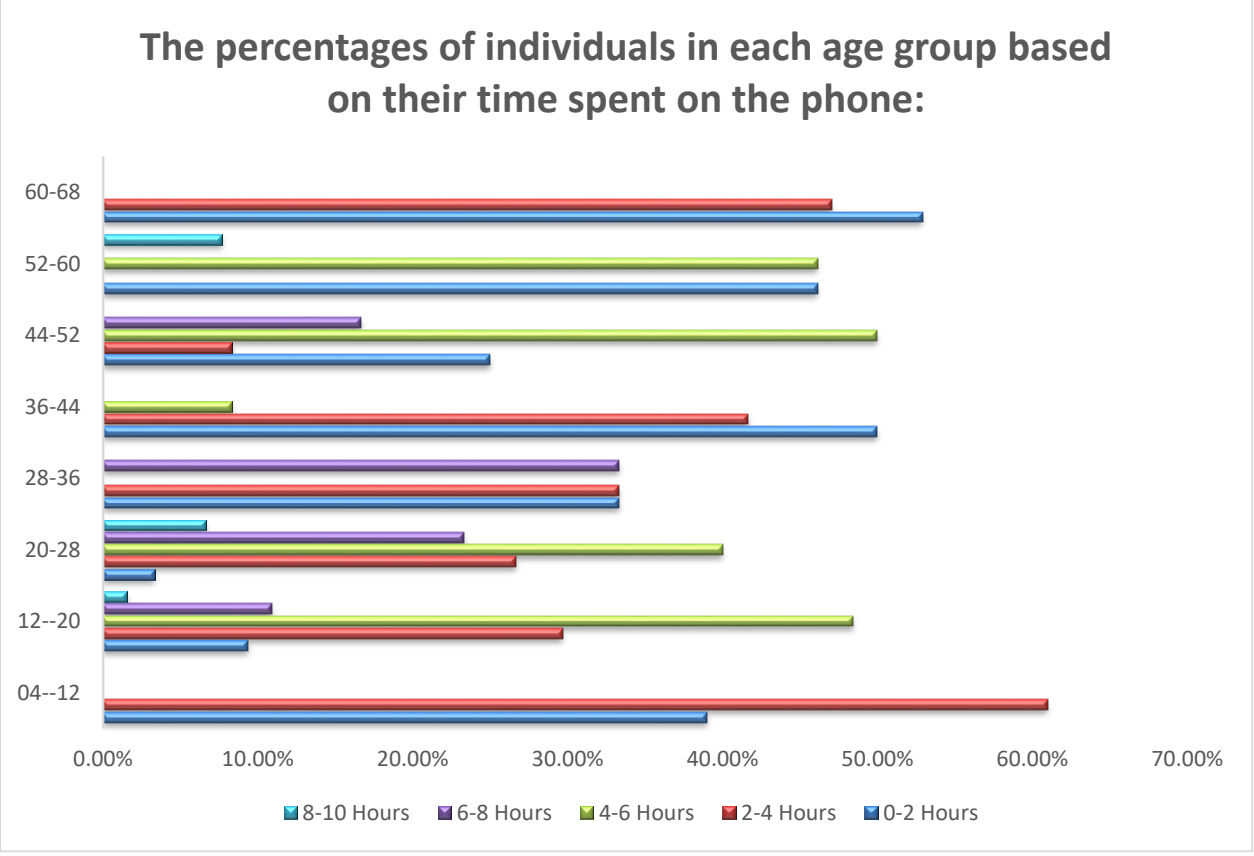
Result and Discussion

The percentages of individuals in each age group based on gender



The percentages of individuals in each age group based on their time spent on the phone:

Age Group	0-2 Hours	2-4 Hours	4-6 Hours	6-8 Hours	8-10 Hours
4-12	39.02%	60.98%	0.00%	0.00%	0.00%
12-20	9.38%	29.69%	48.44%	10.94%	1.56%
20-28	3.33%	26.67%	40.00%	23.33%	6.67%
28-36	33.33%	33.33%	0.00%	33.33%	0.00%
36-44	50.00%	41.67%	8.33%	0.00%	0.00%
44-52	25.00%	8.33%	50.00%	16.67%	0.00%
52-60	46.15%	0.00%	46.15%	0.00%	7.69%
60-68	52.94%	47.06%	0.00%	0.00%	0.00%



There is a notable variance in the gender distribution among age groups, according to the analysis: There are roughly equal numbers of males and females in the younger age range (4–12 years), with 53.66% and 46.34%, respectively. The proportion of women increases significantly among adolescents (12–20 years old) (76.56% female, 23.44% male), and this trend persists into young adulthood (20–28 years old), when women predominate (83.33% female, 16.67% male). There is a clear reversal in the age ranges of 28–36 and 44–52, where 83.33% of the population is male and 16.67% is female. While the 52–60 age group has a more balanced distribution (38.46% female, 61.54% male), the 36–44 and 60–68 age groups once again exhibit a higher female percentage (83.33% and 76.47%, respectively).

The phone usage data shows patterns that correspond with lifestyle and age factors It was observed that the young age group uses mobile for a longer period. This is a very alarming situation because they have to concentrate on health care; unfortunately, they are wasting their time. Kids (4–12 years old): 60.98% of them use their phones for 2–4 hours, 39.02% for 0–2 hours, and nobody uses them for more

than 4 hours. Teens (12–20 years old): A significant percentage (48.44%) use their phones for 4–6 hours, while 10.94% use them for 6–8 hours. 9.38% of users restrict their usage to 0–2 hours. Young individuals (20–28 years old): 23.33% use their phones for up to 6–8 hours, and a noteworthy 40% use them for 4–6 hours. This group seems to be highly dependent on their phones. Adults in their middle years (28–44): A more diverse pattern is shown. There is a split between 0–2 hours (33.33%), 2–4 hours (33.33%), and 6–8 hours (33.33%) for the 28–36 age group. With very little higher usage, the 36–44 age group primarily uses 0–2 hours (50%) and 2–4 hours (41.67%). Older individuals (ages 44–68): Of those aged 44–52, 50% use their phones for 4–6 hours, and those aged 52–60 use them for a balance of 0–2 hours (46.15%) and 4–6 hours (46.15%). The largest percentage of people in the 60–68 age range (52.94%) limit their usage to 0–2 hours. This may be poor literacy at this age group

Gender Trends: Social influences, educational priorities, and employment trends may all have an impact on the changing gender distribution among age groups. While the male predominance in the 28–36 and 44–52 age groups may reflect changes in workforce engagement, the high percentage of females in young adulthood may suggest a skewed sample from educational institutions. Trends in Phone Usage: Teenagers (12–20 years old) and young adults (20–28 years old) use phones the most, which is consistent with trends in education, social media use, and online entertainment. Older persons (60–68 years old) have the least reliance on phones, whereas middle-aged people use them more evenly.

Taking consideration of Health and Behaviour Younger populations are in a dangerous situation; high phone use raises the possibility of problems like screen addiction, digital eye strain, and decreased physical activity. On the other hand, older folk's low usage can be a sign of their low level of digital literacy or their preference for offline activities. Although there are regional variations, research from the Peer Research Centre (2022) [Karlsson J. et. al] indicates that phone usage among teenagers and young adults is generally high globally when compared to global trends. Furthermore, a study by Twenge & Campbell (2018) [Sharman S. et. al] shows that young women are more active on social media, highlighting comparable gender differences in digital engagement. The findings here are supported by the World Health Organization's (2021) [Elhai JD. et. al.] emphasis on the dangers of excessive screen use. In addition to highlighting more general patterns in phone usage and gender distribution, these comparisons bolster the veracity of the data that is provided.

Conclusion

This cross-sectional study explored the relationship between age, gender, and mobile screen time, highlighting key patterns in device usage across different demographic groups. The findings suggest that younger individuals tend to have higher screen time compared to older age groups, while gender differences in mobile usage patterns may vary based on specific activities and purposes. The study also underscores the potential impact of excessive screen time on health and well-being, emphasizing the need for balanced digital habits. Future research could further investigate the long-term effects of screen time across diverse populations and explore strategies for promoting healthier technology use.

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