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Editorial

PREVALENCE OF SMARTPHONE ADDICTION AMONG ADOLESCENTS

Sadia Malik[a*]

[a]Department of Psychology, University of Sargodha, Sargodha, Pakistan

*Correspondence to: Ms. Sadia Malik, Department of Psychology, University of Sargodha, Sargodha, Pakistan. E-mail: talatkhalida@gmail.com.

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ABSTRACT

The aim of the study was to check out the prevalence of smartphone addiction among adolescents in Sargodha and to explore the prevalence of smartphone addiction among adolescents across demographics. It was an epidemiological study. The study involved large-scale data from educational institutions in Sargodha along demographic differences. Data was collected from different colleges and universities in Sargodha. A total of 1000 participants were used in collecting the data, and their collection was based on purposive sampling method. The current study was founded on epidemiology with descriptive methods to investigate the data on the prevalence in Sargodha. The current research was conducted between 2017 and 2018 between the months of October 2017 and October 2018. The results indicated that out of the 1000 participants, only 119, 12%, were reported without smartphone addiction, and 881, 88%, were reported with smartphone addiction. The frequency of smartphone addiction in boys calculated in the present study was 93.6%, and the frequency of smartphone addiction in girls was 85.0% in Sargodha. Boys were found to have more smartphone addiction as compared to girls. Similarly, adolescents belonging to the nuclear family system have a higher degree of smartphone addiction as compared to adolescents belonging to the extended family system. It was the first epidemiological investigation of the prevalence of smartphone addiction in Sargodha that explored factual information for researchers, educational institutions, and families.

I. INTRODUCTION

Researcher defined smartphone addiction as a type of technological addiction which involves dependence and compulsive use of smartphone (Sánchez-Kuhn et al., 2024). Respectively, Griffiths (1996) operationally describe this kind of addictions as non-chemical behavioral dependence that includes human machine contact. Smartphone addiction, smartphone abuse, and smartphone misuse are the terms that describe same phenomenon which is the form of compulsive use of a smartphone by adolescents across the world. As technology becomes more advanced and readily available for individual citizens across the world smartphone addiction or smartphone abuse is becoming rampant crisis in the adolescents' age group. According to Korean Communications Commission it is estimated that roughly over half of 40 million people aged 15 years old carry smartphones (Long et al., 2016). The growing overuse of smartphones across the world in adolescents has caused psychologists to redefine health disorders and social problems arising from smartphones such as, increase in anxiety, trouble sleeping, anti-social behavior, use of smartphone linking to serious accidents while operating a vehicle and most notably nomophobia, the fear of being away from smartphone.

The world is progressing very rapidly in technological advisements; one such advancement is the high-speed internet which is paving way for more advanced smartphone development. The advancements in smartphones are

making adolescents lives more convenient each day. As use of smartphone grows companies are making dedicated applications to make smartphones more popular than computers. A smartphone gives an access to individuals to abundant source of information, entertainment, e-commerce and many useful applications to make them more addicted to smartphones. Furthermore, overuse of smartphones may bring to psychological and behavioral issues, it may cause maladaptive behavioral difficulties, get in the way of school or work performance, reduce real-life communication, and neglect of personal life (Babadi-Akashe et al., 2014; Soni & Upadhyay, 2017). On the top 10 countries of the list, Pakistan ranked 9th with huge number of smartphone users. As of the period under consideration, the number of smartphone users in Pakistan increased by 1.18 million reaching 144.52 million by the end of December of 2017 compared to 143.34 million as of November of the same year. A survey in the research study found that smartphone addiction is 0.7% higher than internet addiction (Ejaz et al., 2023). These abundant benefits are making adolescents more dependent on the technology giving rise to abuse or misuse of smartphones.

Moreover, smartphone and social media combined give adolescents the perfect illusion of happiness by accessing apps which allow them to watch videos, listen to music, chat with friends and expand their social network they are distracted from the real world. The constant use of smartphones gives adolescents a continuous hit of dopamine making their brains more obsessed to smartphones leading to behavioral addictions. Smartphone addiction is similar to substance abuse, internet, and games (Lee, 2006). Another study concludes that smartphone addiction leads to problems such as “cravings, withdrawal, tolerance, daily-life disruption and inclination of cyberspace-oriented relationship that are validated through the diagnosis (Kwon et al., 2013). South Korean university findings also conclude that a relationship with smartphone and mental health is more evident in adolescents compared with older people as adolescents are more at risk of developing such problems. In South Korea, smartphone addiction that occurred among junior high school students was 24.8% and prevalence rates of smartphone addiction among university students and staff were 12.8% and 21.5% in Spain and Belgium, respectively (Haug et al., 2015; Porta, 2008). There was a 16.9-percent addiction of smartphone among a sample population in a Swiss vocational school. According to a study carried out in China, the problems related to the smartphone were found to be 21.3 percent common among undergraduates that were assessed using different scales (Long et al., 2016).

II. METHOD

Participants

The current study was carried out on the basis of the epidemiology with the descriptive method of exploration of the information. The present study involved a sample of adolescents (N= 1000) between the ages of 18 and 26 years old (*M* = 21.09, *SD* = 2.39). The general descriptive chronologic demarcation of adolescence is the age of 10 to 18, although a range of 9 to 26 can be included in some sources (American Psychiatric Association; 2013; Kwon et al., 2013). The sample was being further divided into boys (*n* = 500, 50%) and girls (*n* = 500, 50%). The adolescent is targeted due to more relevance and higher prevalence of smartphone addiction. Specifically, adolescents have been cited as a big risk group to this smartphone addiction in terms of prevalence. Sampling adequacy test was used to calculate the sample size and ensured that the sample of 1000 was adequate to run with the statistical analysis of the given study.

Measures

For measuring smartphone addiction, the Smartphone Addiction Scale (Short Version) (Kwon et al., 2013) was used and Urdu translated by researcher. It comprised of ten items with a six-point Likert scale with 1 = ‘‘*strongly disagree*’’ and 6 = ‘‘*strongly agree*’’. It was based on self-report rating. All items were positively scored. The minimum and maximum scores on this scale can be 10 and 60 respectively. The scale consisted of cut off scoring pattern in which 31 scores for boys and 33 for girls are interpreted as the presence of smartphone addiction. The internal consistency and concurrent validity of Smartphone addiction questionnaire was confirmed with a Cronbach's alpha of 0.91.

Procedure

Data was collected from the educational institutions of Sargodha. Purposive sampling technique was used for data collection. The inclusion criteria were based on the specific age range for adolescence and only educated adolescents were included in the sample. Students not meeting the age based criteria and the uneducated adolescents were excluded from the sample. The data was collected on SAS-SV and entered into SPSS-24. Frequencies were computed for across demographic variables. Pie chart and bar graphs were used to test the differences in the prevalence across demographic variables. Ethical issues were addressed during this study.

III. RESULTS

It is an epidemiological study and conducted to identify the prevalence of smartphone addiction among adolescents across demographic variables.

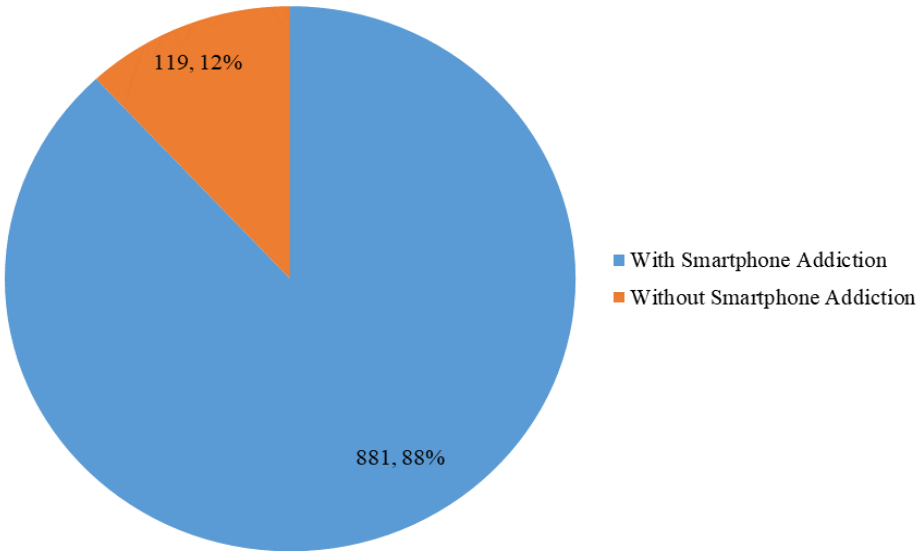

Figure 1: Prevalence of smartphone addiction among adolescents across demographic variables

The frequency depicted that out of the 1000 participants; only 12% were reported without smartphone addiction and 88% were reported with smartphone addiction.

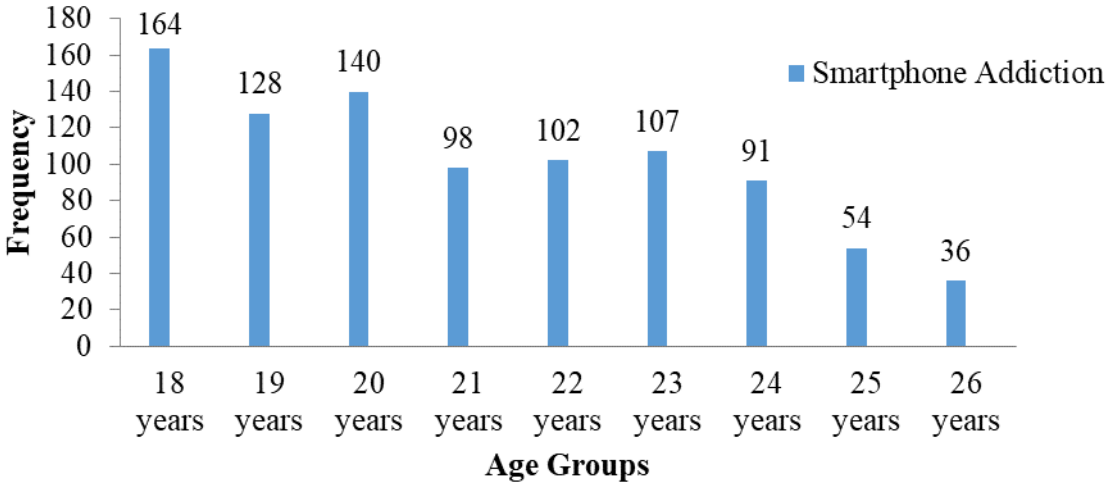

Figure 2: Prevalence of smartphone addiction among Adolescents from different age groups

Frequency depicted that adolescents with age groups of 18, 19, 20 and 23 exhibited higher prevalence of smartphone addiction as compared to age groups of 21, 22, 24, 25 and 26.

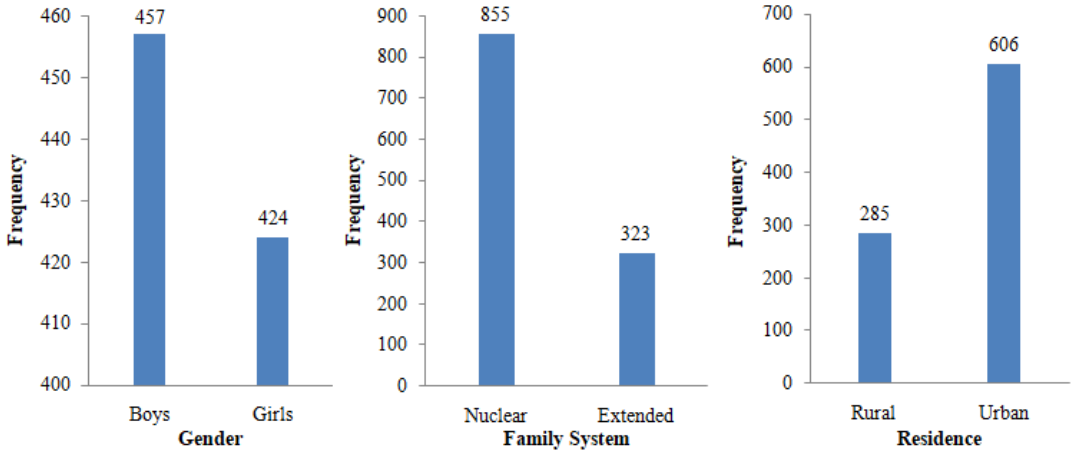

Figure 3: Prevalence of smartphone addiction across gender, family system, and residence of adolescents

The frequency showed that smartphone addiction was more common in boys than in girls. Adolescents from urban residential areas had a higher prevalence rate of smartphone addiction than those from rural residential areas, and adolescents from nuclear family systems had a higher prevalence than those from extended family systems.

IV. DISCUSSION

More exclusively, the prevalence of disorders beside different demographic factors can be intended through epidemiology (American Psychiatric Association, 2013). The most important objective of present study was to examine the prevalence of smartphone addiction among adolescents in Sargodha. However, data was collected from educational institutions of Sargodha. Prevalence percentage of smartphone-related compelling behavior, functional impairment, tolerance and withdrawal symptoms were significant (Matar-Boumosleh & Jaalouk, 2017; Rimsha, 2024). Smartphone misuse is rising as an alarming problem among the world population including physical issues such as eyes strain, muscle spasm, and mental issues (De-Sola et al., 2017). Along with smartphone, accessibility of Wi-Fi facility in residential areas also increases smartphone addiction. Smartphone addiction among boys in Sargodha was 93.6 percent with prevalence of smartphone addiction among girls being (85.0) percent. The South Korean data showed that the prevalence of smartphone addiction among junior high school students stood at 24.8% against 12.8 and 21.5 of smartphone addiction prevalence rates among students and staff respectively at universities in Spain and Belgium (Lopez-Fernandez, 2017).

Gender differences on smartphone addiction were also of vital consideration. According to Smartphone Users around the World – Statistics and Facts in 2014, 53% of Smartphone users are men and 47% are women. A study declared that boys spend much time on using smartphones as compared to girls and also teenagers spend more time on using smartphones on weekend (Marciano et al., 2021). Research suggested that behavioral addiction was more common among boys than girls (Villella et al., 2011). The recent findings show that adolescents' boys are more prone to continuous smartphone usage as compared to adolescents' girls. Age is another important relevant factor of Smartphone addiction. The results of the study indicated that adolescents with age groups of 18, 19, 20 and 23 exhibited higher prevalence of smartphone addiction as compared to age groups of 21, 22, 24, 25 and 26. A United Kingdom telecommunications regulator OF-COM released figures from their investigation of smartphone use in the United Kingdom showing that 37% of adults and 60% of adolescents acknowledge that they are greatly obsessed to their smartphone, 51% of adults and 65% of adolescents said that they use their smartphone whilst socializing with others, and 22% of adults and 34% of adolescents said to have used their smartphone in mealtimes. Alike to many other western countries, in Switzerland, almost every adolescent age from 12 to 19 years 98% own a

phone, the majority of which 97% are smartphones. The age group of 25 to 34 is found to have the maximum smartphone use rate of 62%. Consumers of the 50 percent of Android Smartphone and 43 percent of Apple iPhone are under the age of 34 years (Katz & Akhus, 2002). Smartphone addiction higher at rate in urban residential areas as compared to rural residential areas respectively, among the adolescents 606 out of 1000 urban areas and the adolescents 285 out of 1000 rural areas. Due to the easily accessibility of internet and Wi-Fi facilities in cities at every corner of shops and restaurants, therefore it is obvious to get higher rate of prevalence among adolescents from urban areas.

V. CONCLUSION

The prevalence of smartphone addiction along with demographic differences among adolescents has depicted relativity higher rates of prevalence as compared to other countries. Although the study was limited to a sample from a single district of Pakistan but still the higher prevalence estimates shed light on the careful consideration of this issue as adolescence is age of transition in the lifespan which has long lasting impacts. The study seeks the attention of mental health practitioners, family therapists and educational career counsellors to consider this issue on the top priorities. The split in prevalence across demographic variables also needs to be taken into consideration. There could be a possibility of social desirability that shaped the answers of the adolescents. They may not have been specific on the use time and the content consumed on a smartphone intentionally or unintentionally. To give an accurate picture of prevalence of smartphone addiction in Pakistan, a nation-wide sample should be carried out. This paper is also among the most comprehensive researches on the use of Smartphone in Pakistan, and one of the earliest to be conducted on the frequency of Smartphone addiction among teenagers. It is an important research work since it offered an in-depth insight into the setting of Smartphone addiction in adolescents. The research can advise the institutions, addiction centers, psychologists and families regarding the causes and coping mechanisms of Smartphone addiction in adolescents. Moreover, it may help parents and educators realize how teenagers abuse smartphones to satisfy their psychological needs and propose relevant solutions and options to minimize the addiction. However, the very most significant task is to make adolescents conscious of their Smartphone usage habits. The frequency of smartphone addiction among boys in the current study was (93.6) and the frequency of smartphone addiction among the girls was (85.0) in Sargodha. It is a problem that addressed macro level addiction.

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