

Correlates of Smartphone Addiction, Social Media Addiction and Stress among the College Youth

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Background: Smartphone usage and social media addiction is alarmingly increasing among college youth. This is found to have negative consequences on their academic, personal and social life. This study aims to investigate the correlates of smartphone addiction, social media addiction and stress among the college going youth.

Materials and Methods: A total of 174 college students participated in this descriptive cross-sectional study. The data were collected with Smartphone Addiction Scale-Short version, social media disorder scale, and perceived stress scale with a semi-structured tool for socio-demographic details. Data were analyzed with appropriate descriptive and inferential statistical tests.

Results: Majority of the participants were female students (58.6%). Mean age of the students was 21years. Results showed that males had significantly higher smartphone addiction scores as compared to females ($t=2.133$,

$p=0.034$). There was a positive relationship between social media addiction and stress ($r=0.201$, $p=0.008$), and smartphone usage and social media addiction ($r=0.466$, $p=0.001$) among the students. Students who were using iOS smartphones had significantly higher social media addiction scores in comparison with android smartphones (Mann $U=711.500$, $p=0.05$).

Conclusion: Smartphone addiction scores are high among male hence gender specific interventions are recommended. Also, stress and social media addiction are positively related. Hence, targeting stress or social media may help in reducing the smartphone addiction levels among college youth.

Key Words: College Students, Addiction, Smartphone, Social Media, Stress..

INTRODUCTION

Addiction not only refers to substance abuse or drugs, it also refers to internet, gaming and smartphone and the technology addiction also falls into the category of behavioral addiction. The diagnosing criteria of dependence syndrome of alcohol and substance abuse are applicable for smartphone addiction such as; A strong desire or sense of compulsion, difficulties in controlling, in terms of its onset, termination, or levels of use; physiological withdrawal state when use has ceased or been reduced, as evidenced by the characteristic withdrawal syndrome, evidence of tolerance, such that increased of usage day by day, progressive neglect of alternative pleasures or interests because of smartphone or substance use, persisting use despite clear evidence of overtly harmful consequences (Organization, 1993).

Smartphone usage is alarmingly increasing among college going youth and technology plays an important role in each individual's life (Goswami & Singh, 2016). Dependence on smartphone has increased the concern about time of using the smartphone by individual (Sok, Seong, & Ryu, 2018). Smartphone is an integral part of culture among the college students and today's college life shows usage of smartphone in physiologically and psychologically in every campus settings (Bisen & Deshpande, 2016). Smartphones are boon of this century (Goswami & Singh, 2016). College students are more vulnerable and addicted towards smartphone. Smartphone increase social inclusion, interconnectedness, sense of security to connect with people when they are distressed (Balakrishnan & Raj, 2012). Nowadays mobile communication has reached all the sectors of the society (Auter, 2006). The facilities that smartphone provides are calling, text messaging, still and video cameras, internet access, video chatting, sharing information, opening and editing of documents, online shopping, online payment, online gaming and offline gaming, access to social media, watching movies online and offline, editing of videos, photos and music and much more than the thinking capacity of human. Nowadays smartphone have been used to replace desktops and laptops, all the functions that a computer can perform can be done with a small smartphone. Hence, it is very easy for everyone to carry a small smartphone in the pocket instead of carrying a laptop.

The duration of daily usage of smartphone is one of the major indicators of smartphone addiction (Cha & Seo, 2018). In recent years social media have become an effective part among the youth. The youth get satisfied by using the social network sites. They use to spend their valuable time on social network sites.

Adverse results caused by the overuse of social media and smartphone can be seen in today's society. For example attending phone calls while driving, pedestrians using smartphone while crossing the road (Kwon, Lee, et al., 2013) and selfie deaths etc...

The new coming college students are more prone to stress (D'zurilla & Sheedy, 1991). Five categories of academic stressors (i.e., frustrations, conflicts, pressures, changes, and self-imposed) (Misra & Castillo, 2004).

Studies reported that college students in Asia are having higher significance of internet addiction (Tenzin et al., 2018). College students used smartphone as a leisure device, commonly used for social networking, surfing the Internet, watching videos, and playing games (Lepp, Li, Barkley, & Salehi-Esfahani, 2015). Research revealed that more than 40 percent of adults use smartphone for more than 4 hours a day to send messages and for calling (Torrecillas, 2007). (Aljomaa, Qudah, Albursan, Bakhiet, & Abduljabbar, 2016) reported that these people have problems in psychosocial, technological dimensions, health, and smartphone overuse compared to people use smartphone less than 4 hours a day. One new study found that women are having high compulsion and aggression towards using smartphone (S. Y. Lee et al., 2018). Another study found that women are more socially interactive compared to men (Y.-K. Lee, Chang, Lin, & Cheng, 2014). The reasons for increase in smartphone addiction among male students were use of game apps, anxiety, and poor sleep quality (Chen et al., 2017). Long time of using smartphone, poor parent-child interaction, and high use of smartphones for text, chatting, or social network sites were the reason for increase in smartphone addiction among female (E. J. Lee & Kim, 2018). Smartphone addiction causes sleeping problem among adults and adolescence it will affect the emotional stability and learning skills (Chung et al., 2018). Social media is one of the risk factor

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in increasing the smartphone addiction (Van Deursen, Bolle, Hegner, & Kommers, 2015). Excessive usage of social media usage will negatively affect the academic performance of the individual (Enriquez, 2010). Removal of applications or smartphone from addicted persons may lead to feeling discomfort or panic attacks (Young, 1999). One study revealed that increase in stress will lead to longer period of using smartphone (Venkatesh, Jemal, & Samani, 2017). Increase in stress will lead to psychological problems like depression, anxiety, substance abuse and suicide ideation (Bansal & Bhawe, 2006).

It is necessary to study the pattern of smartphone usage, social media usage and the addiction among the college students of Bengaluru in south India. So the present study aims to find the smartphone addiction, social media addiction and stress among college students. The major objectives of the study were to find the socio-demographic background of the college students, to assess the smartphone addiction, social media addiction and stress of the college students.

Methodology

Research Design

Cross sectional descriptive study design was used to collect the data from the college students on smartphone addiction and social media addiction.

Sampling method and Data collection

Convenient sampling method was used by the researcher to collect the data. Google forms were distributed among the college students for collecting the data in longer distance. Questionnaire was used to collect the data from college students near to researcher.

Settings and participants

The study was conducted among the undergraduates and postgraduates' students in Bengaluru. The participant of this study were 174 college students pursuing post graduate and undergraduate courses age ranged between 18-26 years with mean age of 21 years which is divided into 102 female and 72 males.

Tools for data collection

Self-administered questionnaire was used to collect the socio demographic details of the participants like age, domicile, education, type of smartphone, smartphone brand, monthly income, family type, birth order, number of siblings, type of residence, religion, migration status, onset of using smartphone, average time on daily usage of smartphone, main purpose of using smartphone.

Smartphone Addiction Scale (SAS) short version scale was used to measure the smart phone addiction among the college students. It contains ten items rated on a dimensional scale (1 "strongly disagree" to 6 "strongly agree"). The original SAS-SV showed content and concurrent validity and internal consistency, Cronbach's alpha: 0.91 (Kwon, Kim, Cho, & Yang, 2013).

Social Media disorder scale is used to measure the social media addiction (e.g., WhatsApp, SnapChat, Facebook, Twitter, Instagram, Google+, Pinterest, or forums and weblogs) in the past year. It contains nine item scales with closed ended questions, showed content and concurrent validity and internal consistency, Cronbach's alpha: 0.82 (van den Eijnden, Lemmens, & Valkenburg, 2016).

Perceived stress scale was used to measure the stress level of the respondents. Scale asks about the feelings and thoughts during the last month. It contains ten item rated on the dimensional scale (0 "Never" to 4 "Very often") and showed content and concurrent validity and internal consistency, Cronbach's alpha: 0.82 (Cohen, Kamarck, & Mermelstein, 1994).

Inclusion criteria

College students using smartphone above 18 years

Exclusion criteria

Students not using smartphone and not willing to participate were excluded from the study

Statistical analysis

Data was entered and analyzed using Statistical Package for the Social Sciences (SPSS) version-20 software. Parametric tests such as independent sample t test and Pearson correlation were used to analyze for the data which were normally distributed and non-parametric tests such as Man-whitney U test, spearman correlation are used to analyze for the data which are not normally distributed.

Ethical consideration

The informed written consent was sought from all the participants. The researcher clearly mentioned there are no direct benefits from taking part in this study. Researcher mentioned that the participant have the right to refuse consent or withdraw the same during any part of the study without giving any reason. Strict confidentiality was maintained with regard to the data collected from participant and it will be used only for academic purpose

Other finding

There was a significant negative relationship between smartphone addiction score and onset of using smartphone, which means that if onset of using smartphone is in lower age the smartphone addiction will be higher ($r = -0.177, p = 0.020$).

Results

Table 1: showing the socio demographic details of the respondents in categorical variable

	Demographic Profile	Frequency , (%)
Gender	Male	72 (41.4%)
	Female	102 (58.6%)
Course	UG	78 (44.8%)
	PG & Above	96 (55.2%)
Type of smartphone	Android	160 (92%)
	iOS	14 (8%)
Residence	Staying with family	89 (51.1%)
	Not staying in family	85 (48.9%)
Migration	Yes	38 (21.8%)
	No	136 (78.2%)
Domicile	Rural	72 (41.4%)
	Urban	102 (58.6%)

The data obtained from the participants in the study was analyzed and the following:

- 1) Of the students surveyed (58.6 %) were female students, and (55.2%) of respondents were doing PG & above.
- 2) Based on the survey (92%) of the students were using android smartphones, and (51.1%) of respondents were staying with family and (48.9%) were not staying with family.
- 3) The mean age of onset of smartphone among students was 18 years. The mean years of using smartphone was 4 years, and median of hours of using smartphone daily were 4 hours among the students.
- 4) Majority of the respondents (58.6%) are from Urban and only (21.8 %) are migrated from rural to urban.

Table 2: showing the socio demographic details of the respondents in descriptive statistics

Descriptive Statistics of socio-demographic details					
	N	Minimum	Maximum	Median	Range
Age	174	18.00	32.00	21.00	14
Onset	174	10	23	18.00	13
Total year of using smartphone	174	0.00	17.00	4.00	17
Semester	174	1	10	3	9
Monthly income	174	0	1000000	25000	1000000
Birth Order	174	1	4	2.00	3
Smartphone average time daily	174	1	19	4.00	18

The median age of the student using smartphone is 21 years and the onset of using smartphone is 18 years. A college student uses smartphone for an average time of 4 hours daily.

Diagram 1 shows purpose of using smartphone among the college students, researched found that 85.6% of college students were using social media, 71.3% used for entertainment, 66.77% used smartphone for calling purpose, and 60.3% used for academic purpose.

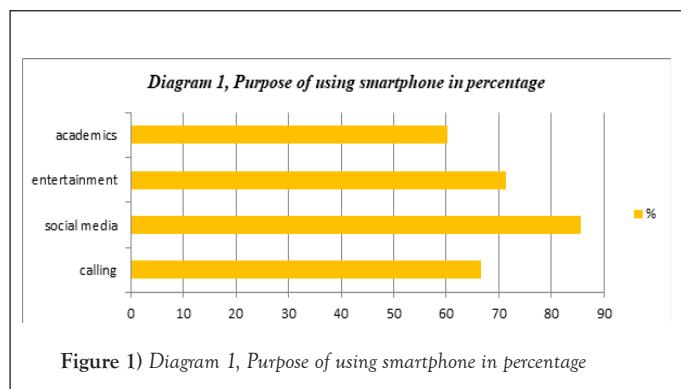


Figure 1) Diagram 1, Purpose of using smartphone in percentage

Table 3 shows the distribution of smartphone addiction among the male and female college students and study revealed that there was a significant mean difference between male and female on smartphone addiction, which means that Male had significantly higher mean smartphone addiction scores in comparison to female ($t=2.133, p=0.03$).

Table3: Showing the distribution of smartphone addiction among the gender.

Variable	Mean ± std	t	Df	P value
Gender Male	31.7917 ± 7.93448	2.133	172	0.034
Gender Female	29.2647 ± 7.52412			

Table 4 shows the distribution of social media addiction on type of smartphone and study shows that there was a significant mean rank difference between android and iOS on social media addiction, which means that iOS had significantly higher mean rank social media addiction scores in comparison to android ($Mann\ u=711.500, p=0.05$).

Table 4: showing the distribution of social media addiction and type of smartphone

Variable	Mean Rank	Median (Range)	Mann U	P value
Android	84.95	15.00 (8.00)	711.500	0.05
iOS	112.27	17.00 (7.00)		

Table 5 shows the relationship between smartphone addiction, social media addiction and stress, the findings revealed that there is a highly significant positive relationship between stress and smartphone addiction scores, stress and social media addiction scores and smartphone and social media addiction scores. Increase in stress is leading to increase in smartphone usage among the college students ($\rho=0.26, p=0.001$), also increase in stress is leading to social media addiction among the college students ($\rho=0.201, p=0.008$) and there is a positive correlation among smartphone addiction and social media addiction ($\rho=0.466, p=0.001$).

	Spearman Correlations	Smartphone addiction	Social media addiction	stress
Smartphone addiction	Spearman's rho	—		
	p-value	—		
Social media addiction	Spearman's rho	0.466	—	
	p-value	0.001	—	
stress	Spearman's rho	0.267	0.201	—
	p-value	0.001	0.008	—

Other finding

There was a significant negative relationship between smartphone addiction score and onset of using smartphone, which means that if onset of using smartphone is in lower age the smartphone addiction will be higher ($r=-0.177, p=0.020$).

Discussions and Implications

The study result showed that (58.6%) were female and the mean age of onset using smartphone is 18 years, and students use smartphone daily average of 4 hours. Study shows that male are having comparatively higher smartphone addiction score compared to female students ($t=2.133, p=0.034$). The researcher found that average hours of using smartphone daily among the college students were 4 hours. Research also revealed that, there is a direct relationship between stress and smartphone addiction scores. Increase in stress is leading to increase in smartphone usage among the college students ($\rho=0.26, p=0.001$). And there is positive correlation among stress and social media addiction, increase in stress will lead to increase in social media addiction ($\rho=0.201, p=0.008$); the researcher found that stress correlates between smartphone addiction and social media addiction. The main purpose of using smartphone among the college students were, 85.6% social media, 71.3% used for entertainment, 66.77% used smartphone for calling purpose, and 60.3% used for academic purpose. Research also revealed that iOS smartphone had significantly higher mean rank social media addiction scores compared to android ($Mann\ u=711.500, p=0.05$). The present study the researcher found that the onset of smartphone use is 18 years old and there was a significant inverse relationship between onset and smartphone addiction. If onset of using smartphone is in lower age the smartphone addiction will be higher ($r=-0.177, p=0.020$). In the present scenario the onset of smartphone addiction is becoming in very young years.

Novelty of the study Strengths

1. 174 samples with a good proportion of male and female gave the study more strength.
2. Scales with good psychometric properties.

Limitations

1. Cross sectional survey of college students predominantly from urban background.

Implications and suggestion

Smartphone usage is alarmingly increasing among college students. The researcher found that it has negative consequences among male students.

The implication for this problem in the context of social work field is given below.

Gender specific intervention studies should be provided for smartphone addiction and stress. Interventions such as cognitive behavioral approach (CBT), Motivational interviewing, Individual counseling, mindfulness and therapeutic recreation will be effective in reducing smartphone addiction and social media addiction. Counselling and group work sessions can also be given by the social workers regarding on controlling the smartphone addiction, social media addiction and stress among college students. Involuntary restriction, self-awareness and self-control, school restrictions, peer support, and professional services can also be provided for reducing smartphone addiction and social media addiction. Meditation, exercise, recreational activities and social interaction can lead to decrease in stress. Awareness on impact of smartphone usage can be given to college students. Parents can be also given awareness because now in the present scenario the onset of using smartphone is in the younger age. There are different applications available in the Google play store for analyzing the smartphone usage among ourselves and it shows how much time daily we spend of each application. Training can be given for college going students for cut down of social media addiction and smartphone addiction, social workers can conduct different training sessions which include activities, debates etc... Make understanding the effects of smartphone in the day to day life and influence of smartphone in our personal life. Service for healthy use of technology (SHUT) clinic in NIMHANS provides training for persons who are addicted towards smartphone and technologies(Travasso, 2014).

Conclusion

Smartphone and social media usage is alarmingly increasing among the college youth. This has found to have negative consequences on their academic, personal and social life. The present study focused on the smartphone addiction, social media addiction and stress among the college students. Smartphone addiction scores are high among male hence gender specific social work interventions are recommended. Also, stress and social media addiction are positively related. Hence, targeting stress and social media through social work interventions may help in reducing the smartphone addiction levels among college youth. The study was generated by conducting an online survey among 174 college students irrespective of gender studying in Bengaluru. The study explores that increase in stress among the college students leads to increase in smartphone addiction and social media addiction. Stress positively correlates between increase in the smartphone addiction and social media addiction. For moving out from stress the college students should not use smartphone and social media rather they should find some healthy ways to stress relief. The researcher suggests that there should be gender specific intervention studies to reduce smartphone addiction among the male.

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