

Smartphone Addiction Is a Reason for Depression among Adolescence and Early Adult Students of Kolkata City

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Abstract – Undoubtedly Smartphone is extremely essential to us, nowadays all aspects of education, researches, information, business, entertainment, sports, travel and other daily activities require smartphone, but its effects and more usage on our society environment and adolescents and young student health is highly debatable. This study aimed to investigate the prevalence of smartphone addiction and its association with depression among adolescence and early adult college going student in Kolkata city.

Today the most used gadget in the world is smartphone. The term ‘Smartphone’ first appeared in 1997, when Eriksson described its GS 88 ‘Penelope’ concept as a smartphone. Addiction is considered by WHO [Expert Committee – 1964] as dependence, as the continuous use of something for the sake of relief, comfort, or stimulation, which often causes cravings when it is absent.

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SMARTPHONE ADDICTION:

Problematic smartphone use also known as smartphone addiction, nomophobia, mobile phone overuse or cell phone dependency is a proposed by some researchers to be a form of psychological or behavioural dependence on cell phone, closely related to other forms of digital media overuse such as social media addiction or internet addiction disorder. Smartphone addiction is a common problem among students worldwide. It can be a risk factor for depression, loneliness, anxiety and sleep disturbances. Anyone from teenager to young and many older people also cannot live without mobile.

DEPRESSION:

Depression is a common illness worldwide, with more than 264 million people affected. Depression is different from usual mood fluctuations and short-lived emotional responses to challenges in everyday life. Especially when long-lasting and with moderate or severe intensity, depression may become a serious health condition. *Symptoms can vary from mild to severe and can include:* - Feeling sad or having a depressed mood, Loss of interest or pleasure in activities once enjoyed, Changes in appetite — weight loss or gain unrelated to dieting, Trouble sleeping or sleeping too much, Loss of energy or increased fatigue, Difficulty thinking, concentrating or

making decisions and Thoughts of death or suicide. It consists of episodes during which the symptoms last for at least 2 weeks. Depression can last for several weeks, months, or years.

HISTORY OF LITERATURE:

Research field seems within the domain of any scientific research plans, a review of literature into be one of literature into the most essential step. Such a review is expected to reveal the nature and the extent of verification of different variables in the field and the available amount of knowledge. The association between smartphone addiction and depression has been discussed in previous studies and different studies assess different outcomes.

According to a survey conducted by the Mobile Ecosystem Forum from November to December 2019, the highest penetration rate among smartphone users was in the age group of 16 to 24 years, with 37 percent. This was followed by the users between 24 and 35 years old. Older Indians surveyed had a lower penetration rate for smartphone usage. (Published by Statista Research Department.)

Specifically, adolescents are a high-risk group for smartphone addiction. Adolescents are strongly attached to their smartphone, and they regard a

smartphone as their second self. Many smartphone users have reported that they would not be able to live without a smartphone (Wajcman et al., 2007).

Another study conducted on excessive use of smartphone paired with negative attitude and feeling of anxiety and dependency on gadgets may increase the risk of anxiety and depression (Rosen et al., 2013). Dependency on smartphone and the impact on purchase behaviour, Young consumers. Insight and Ideas for Responsible Marketers. 2011;] Associations between problematic mobile phone use and psychological parameters in young adults. (International Journal of Public Health. 2012;) Excessive smartphone use at night could keep one awake till late, thus impairing sleep and influencing stress and depression (Lemola et al, 2015). Another observational study reports that insomnia may lead to depression. Gao Y, Li A, Zhu T, Liu X, et al. (2016) did a prospective cohort and proposed that insomnia and risk of depression are associated. It was supported by previous studies that found individuals with smartphone addiction problems tend to have depression problems. [Aigner C & Hacker GW. Boumosleh & Jaalouk (2017) investigated whether anxiety and depression independently contributed to smartphone addiction. Depression in Lebanese and Austrian university students was also significantly associated with smartphone addiction. (Augner C, Hacker G, and Yen C, Tang T, Yen J, Lin H, Huang C). In a 2017 study, Twinge and her colleagues found a troubling correlation across a couple of these survey: adolescents who spent more time on social media and electronics seemed to be at a higher risk for depressive symptoms, and they found- seven-plus hours a day- were more likely to be diagnosed with depression verses people who used them one hour per day.

RESEARCH METHOD:

A cross sectional survey was conducted in December 2019- February 2020 among adolescence and early adult school and college going students on Kolkata city. A total number of 120 Kolkata college going students aged 17 to 21 years using smartphone will assesses through self -reported Questionnaire- Interview schedule, Smartphone Addiction Scale- short version (SAS-SV)- examines smartphone addiction and yields a total score that is indicative of the severity of smartphone addiction; higher scores indicate more severe addictions, the cut-off value for males was 31 and 33 for females (Kwon, Kim, Cho, & Yang, 2013). Those who scored higher than the cut-off values are considered as high-risk for smartphone addiction, which are accessed through 10 items, based on self-reporting six-point Likert scale (1: "strongly disagree", 2: "disagree", 3: "weakly disagree", 4: "weakly agree", 5: "agree", and 6: "strongly agree"), to determine the internal consistency / reliability of SAS-SV, Cronbach's alpha:(0.91) & Beck Depression Inventory, 2nd Version (BDI-II) Aaron T. Beck 1996.

To measure depression symptoms and severity in persons ages ≥ 13 years. Total score ranges from 0-60. It consists 21 items rated on a 4-point scale, for each item ranging from 0 to 3. Total score of 0-13 is considered minimal range, 14-19 is mild, 20-28 is moderate, and 29-63 is severe. This tool showed a Cronbach's alpha reliability co-efficient 0.89.

Data were scored following the scoring key and scores were computed statistically for further interpretation. Descriptive Statistic: Mean and Standard deviation, percentages and Inferential Statistic: T- test will be used for this study.

STUDY AREA:

R.G. Kar Medical College KOLKATA, Swami Vivekananda Seba samiti Nataghar, Sodepure. Kolkata, Chandrachur school Sodepure, Panihati COLLEGE SODEPURE, Kolkata.

Sample characteristics:

The sample of the present study consists of 120 individuals, the adolescence age group (16-18) were 60 (50%) and the early younger age group (18-21) were 60 (50%), Sex: Males (60) and Females (60).

Result from the present study found that:

According to Interview schedules -85% (102) students would not like to express their family income, 20% (24) students change their mobile after 2-3 years. All Students were used their mobile for call, SMS and internet and main function and camera. 88.3% (106) students expressed that design of the mobile is important, 2.5% (3) have more than 1 mobile set. 99% (119) students thought about negative effect of smartphone. 65% (78) students conscious their smartphone addiction. 97.5% (117) thought anxiety over losing their smartphone, 75.5% (91) students expressed that spent on their smartphone been increasing. 60.1% (73) students addicted to mobile game. 28% (34) Student were incapable of time management due to mobile dependency. 45% (54) students skip breakfast or dinner due to smartphone dependence. 98.%(118) students revealed that use of mobile decrease their attention and concentration.

TABLE 1:- MEANS(M) AND STANDER DEVIATIONS (S.D) AND T- VALUES OF THE DIFFERENT STUDY GROUPS [ADOLESCENT AND EARLY ADULT INDIVIDUALE] CORROSPONDING TO THE SELECTED VARIABLES AND THEIR RESPECTIVE DIMENSIONS.

VARIABLES	GROUPS N=60 Male and female	MEANS	S.D	T=VALUES Df-116
SMARTPHONE ADDICTION	ADOLESCENCE	36.63	6.96	0.963 In groups
	EARLY ADULTHOOD	35.5	6.17	
DEPRESSION	ADOLESCENCE	25.26	8.7	0.242 In groups
	EARLY ADULTHOOD	24.9	8.22	

P<0.05 Level of significance

The result shown on table-1, revealed that the mean magnitude of Adolescent students 36.63 is higher than the mean magnitude of Early adult students 35.5 and that the mean magnitude of Adolescent 25.26 is higher than the mean magnitude of Early adulthood 24.9. Depression in adolescent individuals have higher scores than the early adult individual, because they are more susceptible to stressors, adolescent students could not reach their goal, due to lack of timely study. Continuous use of smartphones leads to insomnia and results in depression.

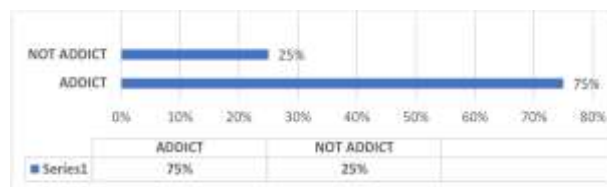
TABLE 2: MEANS (M) AND STANDER DEVIATION (S.D) AND T-VALUES OF MALE AND FEMALE PARTICEPANTS (IRRESPECTIVE OF THE DIFFERENT GROUPS) CORROSPONDING TO THE SMARTPHONE ADDICTION AND DEPRESSION AND THEIR RESPECTIVE DIMINTIONS

VARIABLES	MALES (N=60)		FEMALES N=(60)		t-value
	MEAN	SD	MEAN	SD	
DEPRESSION	26.45	8.07	23.71	8.62	1.81
SMARTPHONE ADDICTION	38.61	6.22	33.6	6.06	2.79

P<0.05 Level of significance

Table-2 revealed that Mean (M) and Standard Deviations (S.D) and t-values of male and female participants (irrespective of the different groups) corresponding to the selected variables and their respective dimensions; Depression and Smartphone Addiction Male counterparts have higher scores than Female counterparts.

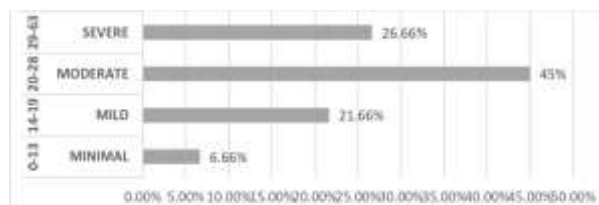
-PERCENTAGE OF STUDENTS SMARTPHONE ADDICTION-(n=120)



[Male cut off marks= below 31, Female cut off marks= below 33].

Result shown that 90 (75%) students were smartphone addicted and 36 (25%) were not addicted. All students were scores below 70, means slightly addicted. Smartphone dependency is blocking the performance of their academic performance. Cell phone addiction is negatively correlated with academic performance. (Ng et al. 2017)

-Percentage of student level of depression: N=120.



The responses to Beck Depression Inventory classified as ups and downs to be normal were 6.66% (score=8), Mild Mood Disturbance 21.66% (score=26), Moderate Depression 45% (score=54), and Severe Depression 26.66% (score=32).

54 (45%) students were moderately depressed and 32 (26.6%) students are severely depressed by Beck Depression Inventory -2nd version, which was seriously alarming. Another study shown that Adolescents are strongly attached to their smartphone, and they regard a smartphone as their second self. Many smartphone users have reported that they would not be able to live without a smartphone (Wajcman et al., 2007). Another study focused that, it is speculated that not only addiction to smartphone usage can affect one's mental and behavioural status, but also that those with mood disorders are more likely to become addicted to using their smartphones. (Zhang KZ, Chen C, Lee MK.).

CONCLUSION:

The present study focused that relationship between smartphone addiction and depression is highly alarming on adolescent and early young students in Kolkata city. Adolescent students were more smartphone addicted and depressed than Early adult students. Depression caused different factors like, students with low self-esteem, who are easily overwhelmed by stress, or who are generally

pessimistic in nature. Due to smartphone addiction students get poor academic performance due to incapable of time management. Causing their results to get worse they felt mental distress, such as sleep deprivation, mood swing, anger management issues, loss of appetite, anxiety and energy deprivation. The dependency of one person on person is fading away, this has become one of the most difficult problems in the society. No having a good smart phone costs the mind and feel depressed. They do not get a chance to see what is happening around the locality, even they ignore their family members and family function. But Smartphone has changed the outlook of the family, with the introduction of smartphone to our life, and personal life become more and more mechanistic. It is time to take measures to prevalent mobile dependency on those who are doing mobile launch business. National awareness campaign against the use of other addicts should be done on the students or society about the terrible consequences of smartphone addiction. Due to moderate level of depression, there are need to Psychological counselling, include CBT, interpersonal psychotherapy, and problem-solving treatment, among and improve their mental well-being.

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