

Effects of Excessive Smartphone Usage on Emotional Regulation and Sleep Quality among Young Adults

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ABSTRACT

Introduction: The purpose of this study is to assess the effects of excessive smart phone use on emotional regulation and sleep quality among young adults. Excessive smart phone use can disrupt person's sleep, which can have a serious impact on person's overall mental health. It can impact person's memory, affect one's ability to think clearly, and reduce the cognitive and learning skills. Encouraging self-absorption, Emotional Regulations the conscious or non-conscious control of emotion, mood, or affect. Conscious control is an active thought process or a commitment to a behaviour. Sleep Quality is defined as one's satisfaction of the sleep experience, integrating aspects of sleep initiation, sleep maintenance, sleep quantity, and refreshment upon awakening. **Methods:** The total sample collected was 300, among which 150 were boys and 150 were girls between the ages of 18 to 40 years. Tool used in this study are the Smartphone Addiction Scale (SAS) by Kwon M, Kim D-J, Cho H, Yang S (2013); Emotional regulation by Gross, J.J., & John, O.P. (2003) and Sleep Quality Scale (SQS) by Yi, et al. A convenient sampling method was used. **Results:** The relationship between dependent and independent variable was analysed by using statistical tool such as Pearson correlation, independent sample 't' test. It was found that emotional regulation and sleep quality is significantly related to smart phone usage, and there is no gender difference found. **Conclusion:** The findings of this study will be useful for counselling young adults who use Smartphone excessively

Keywords: Smart phone usages, emotional regulation, sleep quality.

Introduction: The Western world has seen a major increase in mobile technology use within the last decade. In 2016, the communications regulator observed the United Kingdom as a "SmartPhone Society"; high number of population own a smartphone, and users pay longer accessing the net via a phone than through alternative devices, like laptops and desktop-computers. These recent trends shows mobiles and internet became intimately tangled to modify "on-the-go" access to a variety of facilities, as well as web-browsing, communication, shopping, banking, and gaming.

Smartphone addiction, sometimes informally known as “nomophobia” (fear of being without a mobile phone), is often told as an Internet overuse problem or Internet addiction disorder. It’s rarely the phone or tablets itself that causes the compulsion to a person, but rather the games, apps, and online worlds it connects us to.

The ability of an individual to modulate an emotion or set of emotions. Explicit emotion regulation requires conscious monitoring, using techniques such as learning construing situations differently in order to manage them better, changing the target of an emotion (e.g., anger) in a way likely to produce a more positive outcome, and recognizing how different behaviors can be used in the service of a given emotional state. Implicit emotion regulation operates without deliberate monitoring; it modulates the intensity or duration of an emotional response without the need for awareness. Emotion regulation typically increases across the lifespan.

“Sleep quality is defined as one’s satisfaction of the sleep experience, integrating aspects of sleep initiation, sleep maintenance, sleep quantity, and refreshment upon awakening”.

Sleep quality may be a vital construct to clinicians and researchers thanks to the high prevalence of disturbed sleep and insomnia, and therefore the clear relevance of sleep quality to optimal health and functioning. Yet, despite its common usage, “sleep quality” may be a term without a transparent definition (Krystal & Edinger, 2008).

Sanjeev Davey and Anradha Davey (2014) did a research on assessment of smart phone addiction in Indian, adolescents. This study is designed as systematic – review and Meta - analysis approach. There is a considerable debate on addiction and abuse to smart phone among adolescents and also impact on their health. The study also says that there are 50% of mobile phone in Indian market and more precise qualification of the associated problem is important to facilitate, range of magnitude level in India is from 39% into 44% as per fixed effects calculate ($p < 0.0001$). This result also shows that Indian teenager’s smart phone addiction cannot only demand interpersonal skills, but also shows that it will lead to significant negative health risk and harmful psychological effects on Indian adolescent. The researcher also found that it has ranging between 0% and 38% depending on the scale used and magnitude of smart phone abuse was between 39% and 44% within a variability ranging from abuse to addiction

Hafidha Suleiman Al-Barashdi, Abdelmajid Bouazza And Naeema H. Jabur (2014) did a study on Smart phone addiction among university undergraduates to find a relationship between the smart phone addiction and their academic achievement. The significant differences of addiction among undergraduates is compared to their gender, field of study, parents educational level, and family income. The findings of the study show gender difference in smart phone addiction but some have shown no significant relationship and also some studies shows the relationship between addiction and student field of study. This examined that the humanities students have higher addiction than physical science students and also have relationship between socio economic factors such as parental, education and family income.

Duygu Akçay, Bülent Devrim Akçay (2018) had done a study on The Effect of Mobile

PhoneUsageonSleepQuality.InAdolescents, they had found that major part of the population had problems in sleeping that may be because of generation habits, family and friends, and other social learning. The average score for total PSQI was 7.04 According to these PSQI scores, 65.5% of the adolescents participating in the study had poor quality sleep. The result also shows the independent sample difference that shows male face more difficulty insleeping.

NaserDerakhshani and Mahmoud Shirazi (2015) conducted a study on The Role of Smartphone Addiction in Emotional Regulation of Boys High School Students. In this study it shows that people use smart phone has correlation in emotional regulation, this study was done only in boys school so there is no gender difference. Tools used in this study are smart phone addiction (SAS) and Emotional regulation scale; The Findings from the study indicate that Smartphone addiction can predict students' emotion regulation. The results showed that in this model of Smartphone addiction for about 17% of the variable to explain the emotion regulation and with regard to the amount of $F=10.38$ and significance level 0.02 model is acceptable.

OBJECTIVES OF THE STUDY

- Toassesstheeffectsofexcessivesmart phone usage
- Toassesstheeffectsofexcessivesmart phone usage on emotional regulation and sleepquality
- To assess the quality of sleep among youngadults
- Toassesstheinfluenceofdemographic variables on smart phoneusage

HYPOTHESES

- Therewouldbesignificantrelationship between smart phone usage and emotional regulation (Hypotheses1)
- Therewouldbesignificantrelationship between smart phone usage and sleep quality (Hypotheses2)
- There would be significant differences between male and female students in effects of excessive smart phone usage on emotional regulation and sleep quality (Hypotheses3)

VARIABLES

The variables measured within the study area are smart phone addiction, sleep quality, emotional regulation and demographic determinants: Age, Gender, Education, Smart Phone Model. Smart phone addiction is the independent variable andSleep qualityandEmotionalregulationare dependentvariables.

SAMPLING METHOD

300youngadultswere selected using convenience sampling technique.

PARTICIPANTS

Thesampleconsistedof150females and 150 males in the age group 18 to 40years

INSTRUMENTS USED

- The Smartphone Addiction Scale (SAS) by Kwon M, Kim D-J, Cho H, Yang S (2013). Tool contains 44 items scoring: High score indicates higher level of that smartphone usage.
- Emotional Regulation by Gross, J.J., & John, O.P. (2003). Tool contains 10 items and 2 dimensions: 1. Cognitive Reappraisal and 2. Expressive Suppression. Scoring is kept continuous, each facet's scoring is kept separate.
- Sleep Quality Scale (SQS) by Yi et al. (2006). Tool contains 28 items, it evaluates six domains of sleep quality: Day Time Symptoms, Restoration After Sleep, Problem Initiating And Maintaining Sleep, Difficulty Waking And Sleep Satisfaction. Scoring is done using a four – point likert – type scale. The respondents indicate how frequently they exhibit certain sleep behavior.

DATA COLLECTION

Questionnaires were given in person to young adults who were willing to participate in the study. Data was collected from them during their break hours so as to not interrupt their active academic hours. All the collected responses were valid and were included in the study.

DATA ANALYSIS

Data analyses were performed using the Statistical Package for the Social Sciences (SPSS) 20.0. Pearson's product moment correlation was employed to find the relationship between the variables.

RESULTS AND DISCUSSIONS

Table 1. Shows the result of excessive smart phone usage and emotional regulation among young adults.

Variables	N	r	Sig.
Smartphone	300	.325**	.000
Emotional Regulation			

$P < 0.01$ * t value is significant at 0.01

Table 2. Shows the results of excessive smart phone usage and sleep quality among young adults.

Variables	N	r	Sig.
Smart Phone	300	.323**	.000
Sleep Quality			

$P < 0.01$ * t value is significant at 0.01

Table 3 shows the gender difference in excessive smart phone usage in emotional regulation and sleep quality among young adults

Gender		N	Mean	Std. Deviation	t	Sig (2 tailed)
Smart Phone	Female	150	123.71	23.30	- 1.626	.105
	Male	150	127.96	21.99		
Emotional Regulation	Female	150	31.91	6.041	- 1.231	.219
	Male	150	32.76	5.96		
Sleep Quality	Female	150	39.07	10.27	- 1.457	.146
	Male	150	40.86	10.65		

The total number of boys and girls were equal (boys-150, girls-150). The mean age of students are 17-19 years is (45.30%), 20-22 years is (27.40%), 22-24 years is (23.50%) and 25 and above is (3.80%)

As shown in Table.1. The correlation in smart phone usage and emotional regulation among young adults. At the confidence level of 0.01. Therefore, the hypothesis 1 (There would be significant relationship between smart phone usage and emotional regulation among young adults) was accepted. The result of this study is in line with the results of the study conducted by NaserDerakhshani and MahmoudShirazi (2015) who also reported that smart phone usage is significantly related with emotional regulation.

The results presented in Table.2. Shows the correlation in smart phone usage and sleep quality among young adults. At the confidence level of 0.01 therefore hypothesis 2 (There would be significant relationship between smart phone usage and sleep quality among young adults) was accepted. The result of this study is in line with the results of the study conducted by KadirDemirci and Mehmet Akgonul (2015) who also reported that smart phone usage is significantly related with sleep quality.

As indicated in the Table.3. The gender difference between male and female young adults. The results show there is no significant difference between male and female students on smart phone usage. Therefore hypothesis 3 (There would be significant differences between male and female in effect of excessive smartphone usage on emotional regulation and sleep quality) was not accepted.

SUMMARY

The present study was conducted to assess the effects of excessive smart phone usage on emotional regulation and sleep quality among young adults. Smart phone usage was used as main independent variable, while emotional regulation and sleep quality were used as dependent variables for the study. A standardized scale of The Smartphone Addiction Scale (SAS) by Kwon M, Kim D-J, Cho H, Yang S (2013) was used to measure SmartPhoneUsage, and Emotional Regulation by Gross, J.J., & John, O.P. (2003) and Sleep Quality Scale (SQS)

by Chol.Shin et al were used to measure Emotional Regulation and Sleep Quality of the population and also demographic variables namely, Age, Gender, Education, Smart Phone Model were used in the study.

The sample for the study consisted of 300 subject 150 male and 150 female students from Chennai city. The data was analyzed using Pearson Correlation, Independent sample 't' test and Descriptive statistics such as Standard Deviation and Mean are used in the study.

CONCLUSION

- The study found that excessive smart phone usage is significantly related to Emotional Regulation among young adults.
- The study revealed that excessive smart phone usage is significantly related to Sleep Quality among young adults.
- The study found that there is no significant difference between male and female students on smart phone usage in this study.

LIMITATIONS

- Geographically the study is limited to Chennai city.
- This study is limited only between age group of 17 to 25 years.
- This study is limited with people using smart phone only.
- Since, convenient sampling method was used; the findings cannot be generalized to main population.

SUGGESTION FOR FURTHER RESEARCH

- Comparative study on basic phone users and smart phone use can be studied.
- The findings of the present study deserve to be pursued using random sampling method.

IMPLICATION OF THE STUDY

The findings of this study will be useful for counseling young adults who use smart phone excessively and also to educate them about its impact on Sleep Quality and Emotional Regulation.

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