

# To Assess the Use of Mobile Phone and Depression among the Selected Pre-University College Going Students

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**ABSTRACT--***The use of cellular phone has increased rapidly in the recent years and this overuse of mobile phones makes the person dependent and addicted. The dependence syndrome in which users of mobile phone show some problematic behaviors which leads to nervousness and melancholy if they are not allowed to use a mobile phone. Therefore, to reduce depression among the college going students it is necessary to assess the mobile phones use. Study assessed the cellphone use and depression among the selected pre-university college going students. A cross sectional design was used to conduct the study among the pre-university college going students at Karad. A survey of 110 pre-University College going students, selected by non-probability purposive sampling method. Permission was taken from the setting; data collection was done by using addiction scale for use of smart phone – short version the questions were directed towards assessment of addiction for Smart phone and PHQ-9 depression questionnaire used for assessing the depression among Pre-University College Going Students. Result of the present study shows that the correlation coefficient (r) value was 0.5235 the despair and smart phone dependency had been positively correlated with two tailed p value < 0.0001 which was considered as significant. Per day time spent on cell phone, purpose of cell tele phone use and duration of mobile phone use had been substantially associated with smartphone addiction at  $p < 0.0001$ ,  $p < 0.0001$  and  $p < 0.0496$  respectively. Also, the depression was significantly associated with time spent on cell phone per day, purpose of use of cellular phone and residency at  $p < 0.0028$ ,  $p < 0.0001$  and  $p < 0.0202$  respectively. Depression may be associated with overuse of mobile phone. Such overuse may lead to depression. Necessary steps must be taken to prevent this kind of addiction among pre-university college going students and other people also.*

**Key Words--** mobile phone, depression, pre-university college students, addiction.

## I. INTRODUCTION

A mobile phone is a wireless handheld device that allows users to make calls and send text messages, among other features. <sup>1</sup>

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Within a fraction of a second people can contact with their friends and all. But also, there is negative side of this electronic media. Overuse of mobile makes the person dependent or addicted. Many of the times overuse is called 'dependence syndrome' which is the term used by WHO <sup>2</sup>

The dependence syndrome in which mobile phone users shows some uncertain behaviors associated to substance use issues which includes preoccupation with cell communication, more time spent or money on mobile phones, in socially or physically inappropriate condition use of cellular telephones such as while driving a vehicle. Increased use also can lead to expanded time on mobile communication, that affects relationships, anxiety and depression if restricted from a mobile phone.<sup>3</sup>

A study conducted at Alabama State University southeast on the effects of smartphones on students, defines the issue by stating that they are accustomed for information, entertainment, personal connections and social networking sites that a smartphone delivers.<sup>4</sup>

Among 11–14 aged British teens the prevalence of mobile use was 10%. Addiction in India, was cited at 39–44% for this age group. During the last ten years the rapid development of mobile causes several profound changes in the way of people communicate and interact. As mobile phone use increases the person's face to face interaction, expression of feelings and emotions is decreases. Mobile addiction is the term used to refer to an individual who spends a whole lot time on mobile for communicating, using various social media sites like Facebook, what's app, YouTube and all and it negatively affects on school, work or relationship and health. The cellular telephone addiction is no longer recognized officially as psychiatric disorder, still it shows the symptoms of compulsive behavior and it leads to negative effects on mental health. <sup>5</sup>

Many studies also demonstrated the linkage of excessive use of mobiles and reduction in level of happiness, self-esteem, feeling of insecurity and decrease in concentration.<sup>6</sup>

As study done by Lemola S. on digital media use at night time through adolescents', sleep disturbance, and depressive signs and symptoms and signs and symptoms in the smartphone age indicates the robust relation in between smart cellphone dependency and signs of depression.<sup>7</sup>

This study is very important to investigate the seriousness of excessive mobile use in the society now a days. A mobile phone is "a smartphone that performs many of the features of a computer, generally having a contact display screen interface, net access, and a working machine successful of strolling downloaded functions".<sup>8</sup>

Excessive mobile phone user's shows problematic relationships with mobile phones could be characterized as compulsive, obsessive, or unhealthy behavior.<sup>9</sup> It can be called as mobile addiction because people spending so much time to use mobile phone in various ways that it begins to interfere with their lives.<sup>10</sup>

## II. METHODOLOGY-

A cross sectional design was used to conduct the study among the pre-university college going students at Karad. A survey approach was chosen for 110 pre-University College going students, selected by non-probability purposive sampling method. In this study the samples included were who fulfilled the inclusion criteria with the students who are using smart phones and the students of pre-University College. Students who have been now not fascinated to take part in the study were excluded from the study. Ethics Committee of the Research of Krishna Institute of Medical Science Deemed University, Karad, had given permission prior of data collection. Permission

were obtained from the setting, willingness to take in the study were asked to the patients and taken informed consent after that data collection was done using smart phone addiction scale – short version the questions for the assessment of Smart phone addiction and PHQ-9 depression questionnaire used for assessing the depression among Pre-University College Going Students.

### III. RESULTS:

Majority of the samples 71 (64.54%) belong to age group of 17- 18years. Both male and female were in equal numbers that is 55 (50%). Majority of the subjects 87 (79.09%) were from 11th standard. 42 (38.18%) subjects spending their 2 - <3 hours' time on mobile phone, whereas 55 (50 %) of the subjects using their mobile phone for gaming purpose. In terms of duration, maximum 42 (38.18 %) subjects using mobile phone since 1 - <2 years. Mainly 64 (58.18%) subjects are from joint family. 42 (38.18%) participant's parents are farmer, whereas 60 (54.54%) participants are residing in urban area.

**Table 1:** Addiction in Male and Female N = 110

Smart phone addiction scale	Gender	Male	Percentage	Female	Percentage
	Addicted	41	74.55%	39	70.91%
Non-addicted	14	25.45%	16	29.09%	
Total		55		55	

#### *Addiction in Male and Female:*

Table 1 Depicts that majority of subjects 41 (74.55%) males were addicted and 14 (25.45%) were not addicted. Whereas 39 (70.91%) females were addicted and 16 (29.09%) were not addicted with smart phone.

**Table 2:** Level of Depression in Male and Female According to Depression Scale.

N = 110

Depression Scale	LEVEL OF DEPRESSION	Male Frequency	%	Female Frequency	%
	None	23	41.81	27	49.09
Mild	25	45.45	21	38.18	
Moderate	7	12.72	7	12.72	
Total		55		55	

#### Level of Depression in Male and Female According to Depression Scale.

Table o. 2 depicts that majority of subjects 25 (45.45%) males were having mild depression, 7 (12.72%) were having moderate depression and 23 (41.81%) were not having depression. whereas in female maximum 27 (49.09%) were not having depression, 21 (38.18%) were having mild depression and 7 (12.72%) were having moderate depression.

**Table 3:** Level of Depression According to Smartphone Addiction Scale.

N =110

Depression	Smartphone addiction scale			
		Addicted (F)	Percentage	Not addicted (F)
None	20	18.18%	30	27.27%
Mild	46	41.81%	0	0 %
Moderate	14	12.72 %	0	0 %

**Level of Depression According to Smartphone Addiction Scale.**

Table no. 3 depicts that majority of subjects 20 (45.5%) are addicted with smart phone but having no depression, 46 (41.81%) are addicted and having a mild depression, 14 (12.72%) are addicted and having a Moderate depression. whereas only 30 (27.27%) are not addicted with smart phone and having no depression.

**Table 4:** Distribution of subjects according to mean, SD, P value and range of smart phone addiction scale and depression scale among the pre-university college going students.

N=110

Area of analysis	Mean	S.D.	P value	H – L
Part A Smartphone Addiction Scale	32.72	7.260	<0.0001	Min-12 Max-49 Med-34
Part B Depression Scale	5.163	2.945	0.0002	Min-0 Max-12 Med-5

Distribution of subjects according to mean, SD, P value and range of smart phone addiction scale and depression scale among the pre-university college going students.

Table No. 4 Shows that the smart phone addiction scale mean is 32.72 whereas depression scale mean is 5.163.

**Table 5:** Correlation between depression andsmartphone addictionN=110

Correlation coefficient ®	95 % confidence interval	Coefficient of determination (r squared)	The two tailed p value
0.5235	0.3728 to 0.6473	0.2741	<0.0001 *

Table no. 5 Depicts that correlation coefficient between smartphone and depression was 0.5235, 95% confidence interval was 0.3728 to 0.6473, r squared value was 0.2741 and two tailed P value was < 0.0001 that is significant. It showed that there was correlation between depression and smartphone addiction.

#### **IV. DISCUSSION**

Result of the present study shows that the scores of students obtained from smartphone addiction scale - short version (SAS-SV) ranged from 10 to 60 and the common rating used to be  $32.72 \pm 7.260$ . There was once an effective correlation between smartphone use and depression ( $r = 0.5235$ ,  $p < 0.0001$ ). The majority 41 (74.55 %) males were addicted. There was correlation between melancholy and smartphone addiction.

Findings of the present study supported by following study conducted by Kadir Demirci et al. at Turkey Results showed that the mean SAS score was  $75.68 \pm 22.46$ . There was used to be fantastic correlation between smartphone use severity and depression ( $r = 0.267$ ,  $p < 0.001$ ). Mobile phone use severity was much in female than the male.<sup>11</sup>

Another Similar study was conducted by Ruchi Soni, Ritesh Upadhyay, Mahendra Jain in India at Ajmer. He found the average SAS rating was once  $85.66 \pm 23.46$  among smartphone users. There was strong correlation between SAS score and DASS (Depression Anxiety Stress scale) Depression sub score ( $p = 0.51$ ) SAS score was higher significantly in males than in females.<sup>12</sup>

Ozlem Cagan, Alaettin Unsal, Nese Celik found that the scores of college students got from

Problematic Mobile Phone Use Scale ranged from 27 to 135 and the average rating was once  $57.17 \pm 22.75$ . An advantageous correlation was used to be decided between the ratings got from Problematic Mobile Phone Use Scale and the scores of Beck Depression Scale ( $r = -0.256$ ,  $p = 0.000$ ).<sup>13</sup>

The study conducted by Augner C, Hacker Gand Matar Boumosleh J, Jaalouk D found the similar results of positive correlation between melancholy and smartphone addiction.<sup>14</sup>

#### **V. CONCLUSION**

Based on the analysis of the findings, the study concluded that in this new Era of technology addictively using mobile phone is harmful for mental health and it may lead to depression. As we know there is no health without mental health so we must take necessary steps to prevent people from this kind of addiction.

#### **VI. RECOMMENDATIONS**

Keeping in view the findings of the study, the following recommendations are made:

- A similar study can be conducted to assess the attitudes and coping strategies of pre-university students with mobile addiction.
- A study may be conducted to evaluate the effectiveness of instructional Module verses other methods of health teaching on the similar problem.
- A similar study can be conducted on effects of smartphone addiction on mental health with large sample size.

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