

# Effectiveness of Planned Teaching Program on Practice and Attitude Regarding the Ill Effects of Smartphone Usage among Adolescents

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## ABSTRACT

**Introduction:** Smartphone usage (ill effects) is a problem that exists worldwide. Smartphone usage among adolescence will cause physical illness (eyestrain, neck pain, insomnia, restlessness, tendonitis, and risk of cancer) and mental illness (anxiety, lack of concentration, and cyber-bullying). The main aim of this study is to assess the attitude practice on the ill effects of smartphone usage among adolescent students studying at Rajiv Gandhi Arts and Science College.

**Materials and methods:** A quantitative research approach was adopted for this study. Among 60 students, a pre-test was conducted to assess the attitude and practice using semistructured self-administered questionnaires with three sections such as demographic variables, Likert scale to assess attitude, and checklist to assess the practice.

**Results and discussion:** It has been identified that 12% were less-addictive practice, 28% were moderately addictive practice, 60% were more addictive practice, 90% were moderately addictive attitude, and 10% more addictive attitude. Hence, we insist planned teaching program by using pamphlets and video-assisted teaching. After 7 days, a post-test was conducted by a semistructured self-administering questionnaire, in this, it has been identified after the intervention 2% more addictive practice, 78% less-addictive practice, 28% moderately addictive practice, 90% moderately addictive attitude, and 10% more addictive attitude of smartphone usage among adolescence. The association of pre-test and post-test levels of addictive practice in smartphone usage is significantly reduced so that the planned teaching program is effective at students studying at Rajiv Gandhi Arts and Science College.

**Keywords:** Adolescent, Checklist, Likert scale, Smartphone usage.

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“Apparently we love our own cell phone but we hate everyone else’s”

–Joe Bub Baggs

## INTRODUCTION

In India, the number of people using smartphones increased quickly from 149 million in 2014 to 541 million by the end of that year (The Mobile Economy in India, 2015).<sup>1</sup> India will surpass 340 million smartphone users and surpass the United States to become the second-largest smartphone market in the world (Indian telecom statistics 2016). The availability of smartphones that start at a price as low as Rs. 3,000 and come with features like 3G and 4G, making Internet usage significantly faster than the conventional 2G connection, is partly responsible for the surge in the use of smartphones in India.<sup>2,3</sup>

People joke about being addicted to their smartphones frequently, but this is a very genuine issue that affects millions of people worldwide. Ten percent of people who own smartphones now admit to using them while getting dressed or having sex. The same statistics even indicates that 50% of people use their phones while driving. Smartphone addiction is already a huge problem, but as demand for and access to the devices rises, it is likely to become even more widespread. Not to mention the quick technological advancements that enable them to carry out additional tasks at even faster rates.

Adolescence make up 86% of smartphone users worldwide in 2018, and they frequently check their devices. In India, 78% of smartphone users in 2016 check their phones regularly and

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aimlessly. Given that a smartphone provides access to the Internet for knowledge, commerce, communication, and shopping, among other things, the number of registered smartphone users in 2014 climbed to an estimated thirty by end of May, according to reports.<sup>4,5</sup>

The investigator personally noticed that the younger generation uses smartphones without their knowledge wherever they go and at any time. As a result, the researcher decided to conduct a study on “Smartphone Addiction and Its Effects on Health Among College Students.”

## OBJECTIVES

- To assess the pre-test or existing level of attitude and practice regarding the ill effects of smartphone usage among adolescent students.

- To evaluate the effectiveness of a planned teaching program regarding the ill effects of smartphone usage.
- To find out the association between the level of attitude practice with its demographic variables.<sup>6</sup>

## Hypothesis

*H1:* There will be a significant change between pre- and post-test of smartphone addiction among adolescence.

*H2:* There will be a significant association on the effectiveness of a planned teaching program regarding the ill effects of smartphone addiction.<sup>7,8</sup>

## MATERIALS AND METHODS

Pre-experimental research design (one group pre-test and post-test). The study participants were selected by using convenient sampling techniques. About 60 samples were selected.

On pre-test, a structured attitude and practice questionnaire regarding the ill effects of smartphone addiction was distributed and requested to be filled by the respondents. On the same day, planned teaching program on the ill effects of smartphones was administered to the adolescent students for a period of half an hour, and an information booklet entitled General Information regarding the ill effects of smartphone addiction will be distributed to the participants to improve their level of knowledge.<sup>9,10</sup>

Post-test was carried out on the 7th day. Post-test was conducted by using the same structured attitude and practice questionnaire regarding the ill effects of smartphone addiction. Data were analyzed statistically.<sup>11</sup>

## RESULTS AND DISCUSSION

### Section A: Distribution of Selected Demographic Variables among the Adolescence in a Selected College at Puducherry

Table 1 shows regarding age, majority of the subjects were belonging to 17 years  $N = 7$  (11.7%), 18 years  $N = 27$  (45.0%), 19 years  $N = 23$  (38.3%), and 20 years  $N = 3$  (5.0%). Among sex, majority of subjects were male  $N = 41$  (68.3%), with regard to the types of smartphone, smartphone usage, and usage hours  $N = 19$  (96.7%, 65.0%, and 41.7%). With respect to the religion of the adolescent students,  $N = 56$  (93.3%) are Hindu,  $N = 2$  (3.3%) are Muslim, and  $N = 2$  (3.3%) are belonging to Christian, respectively. With respect to marital status of adolescent students, married were  $N = 2$  (3.3%) and remaining samples were unmarried  $N = 58$  (96.7%), respectively. With regard to educational status of the adolescent student, UG 1st year  $N = 26$  (43.3%), UG 2nd year  $N = 33$  (55%), and UG 3rd year  $N = 1$  (1.7%), respectively. With regard to the type of family, the adolescent students belonged to nuclear family  $N = 36$  (60%) and joint family  $N = 22$  (36%), respectively. With regard to the living status of the adolescence,  $N = 54$  (90%) are with family,  $N = 5$  (8%) of them are alone, and  $N = 1$  (1.7%) are in hostel, respectively. With regard to the types of smartphones of the adolescence,  $N = 58$  (96.7%) are using Android and  $N = 2$  (3.3%) are using Window phones. With regard to the smartphone usage of the adolescence,  $N = 39$  (65%) are Internet users,  $N = 3$  (5%) students using SMS, and  $N = 9$  (15%) are using game, respectively. With regard to the usage of hours,  $N = 25$  (41.75%) students are using for 2–3 hours,  $N = 9$  (15%) are using 3–4 hours and  $N = 26$  (43.3%) are using 4–5 hours.<sup>12</sup>

**Table 1:** Frequency and percentage distribution of selected demographic variables in a planned teaching program of adolescents ( $N = 60$ )

Demographic variables	Variables	Frequency (N)	Percentage (%)
Age	17 yrs	7	11.7
	18 yrs	27	45.0
	19 yrs	23	38.3
	20 yrs	3	5.0
Sex	Male	41	68.3
	Female	19	31.7
Religion	Hindu	56	93.3
	Christian	2	3.3
	Muslim	2	3.3
Marital status	Married	2	3.3
	Unmarried	58	96.7
Education	UG (1st yr)	26	43.3
	UG (2nd yr)	33	55.0
	UG (3rd yr)	1	1.7
Family type	Nuclear	36	60.0
	Joint	22	36.7
	Extended	2	3.3
Living status	Alone	5	8.3
	Family	54	90.0
	Hostel	1	1.7
Types of smartphones	Android	58	96.7
	Windows phone	2	3.3
	Smartphone usage	Internet	39
	SMS	3	5.0
	Phone	9	15.0
	Game	9	15.0
Usage of hours	2–3 hours	25	41.7
	3–4 hours	9	15.0
	4–5 hours	26	43.3

**Table 2:** Frequency distribution of addictive attitudes and practice of smartphone use ( $N = 60$ )

Variables	Level of addiction	N	%
Pre-test practice	Less-addictive practice	17	28.3
	Moderately addictive	36	60.0
	More addictive	7	11.7
Post-test practice	Less-addictive practice	47	78.3
	Moderately addictive	12	20.0
	More addictive	1	1.7
Pre-test attitude	More addictive attitude	6	10.0
	Moderately addictive	54	90.0
Post-test attitude	More addictive attitude	8	13.3
	Moderately addictive	6	10.0
	Less addictive	46	76.7

Table 2 presents the pre-test practice score of the level of addiction: less-addictive practice is 17 (28.3%), moderately addictive is 36 (60.0%), and more addictive is 7 (11.7%), and post-test practice:

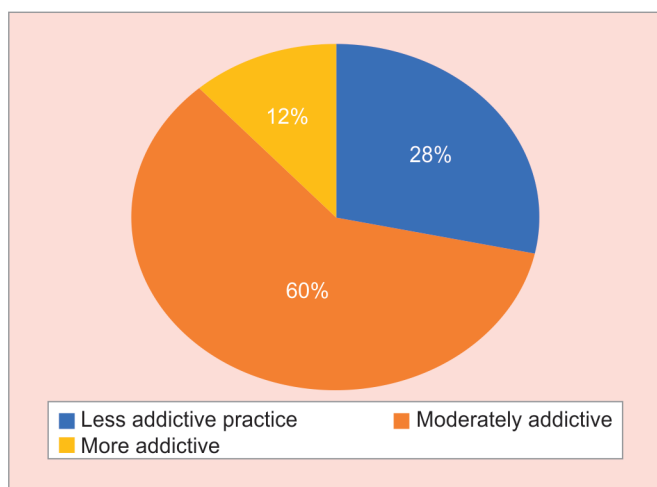


Fig. 1: Level of practice regarding the pre-test on smartphone addiction

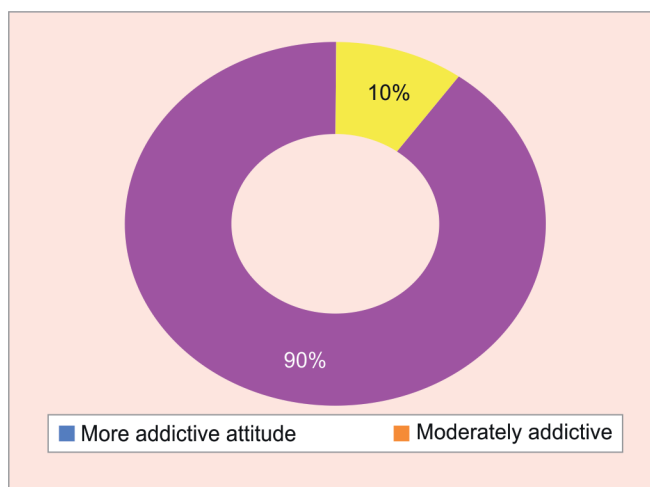


Fig. 3: Level of attitude regarding the pre-test on smartphone addiction

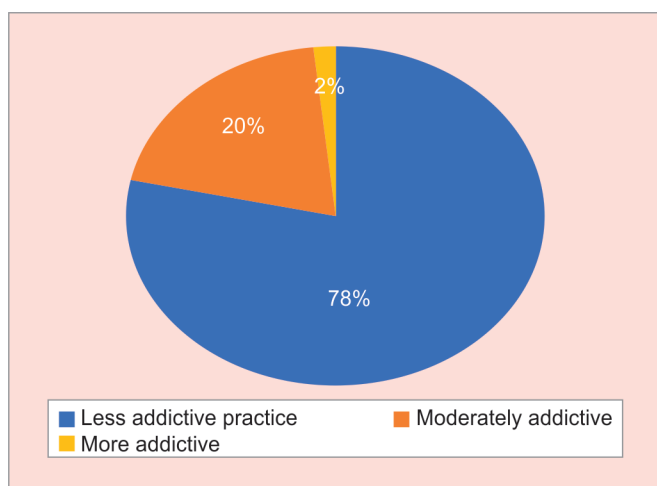


Fig. 2: Level of practice regarding the post-test on smartphone addiction

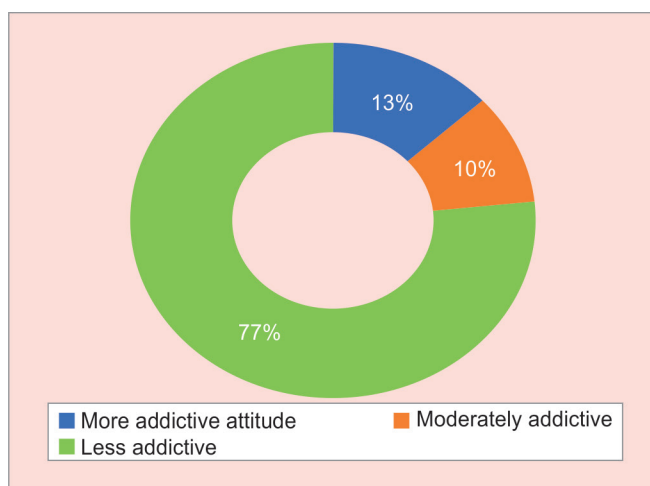


Fig. 4: Level of attitude regarding the post-test on smartphone addiction

less-addictive practice is 47 (78.3%), moderately addictive is 12 (20.0%), more addictive is 1 (1.7%). Pre-test attitudes: more addictive attitude is 6 (10.0%) and moderately addictive is 54 (90.0%). Post-test attitudes: more addictive attitude is 8 (13.3%), moderately addictive is 6 (10.0%), and less addictive is 46 (76.7%).

Figure 1 shows that the use of smartphones more addictive is 60%, moderately addictive is 28%, and less-addictive practice is 12% of smartphone usage in adolescence.

Figure 2 shows that the use of smartphones more addictive is 2%, moderately addictive is 20%, and less-addictive practice is 78% of smartphone usage in adolescence.

Figure 3 shows that the use of smartphones more addictive is 10% and moderately addictive attitude is 90% of smartphone usage in adolescence.<sup>13</sup>

Figure 4 shows that the use of smartphones more addictive is 13%, moderately addictive is 10%, and less-addictive attitude is 77% of smartphone usage in adolescence.<sup>14</sup>

Tables 3 and 4 show that the post-test score of addictive attitudes of smartphone usage more addictive attitude is nil,

moderately addictive is nil, and less addictive is 6 members, more addictive attitude is 8 members, moderately addictive is 6 members, and less addictive is 40 members, the total is 60, the  $p$ -value is 0.32. Our planned teaching program was effective significantly reducing the more addictive usage (attitude) of smartphone.<sup>15,16</sup>

## CONCLUSION

Mobile phone and new technologies have both positive and negative aspects. They have not only helped improve worldwide communication, but newer technology through new social media, social network sites, social informatics, and social software enable us to perform many jobs quickly and effectively, on the other hand, the long-term usage leads to addictive behavior. The result of our study clearly shows smartphone dependence and its effects on health among college students. Further research studies are required to assess the real problem and to investigate more in-depth the psychological aspects and solution for smartphone dependence.<sup>17,18</sup>

**Table 3:** Association between pre- and post-test scores of addictive practice of smartphone usage

	Practice post-test			Total	p-value
	Less-addictive practice	Moderately addictive	More addictive		
Practice pre-test					
Less-addictive practice	11	6	0	17	<b>0.02</b>
Moderately addictive	30	6	0	36	
More addictive	6	0	1	7	
Total	47	12	1	60	

**Table 4:** Association between pre- and post-test scores of addictive attitudes of smartphone usage

	Attitude post-test			Total	p-value
	More addictive attitude	Moderately addictive	Less addictive		
Attitude pre-test					
More addictive attitude	0	0	6	6	<b>0.32</b>
Moderately addictive	8	6	40	54	
Total	8	6	46	60	

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