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## **A STUDY TO EXPLORE THE SMARTPHONE DEPENDENCE AND ITS EFFECTS ON HEALTH AMONG COLLEGE STUDENTS IN SELECTED COLLEGES AT PUDUCHERRY U.T.**

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### **Abstract**

*A study to explore the Smartphone dependence and its effects on health among college students in selected colleges at Puducherry U.T. The objectives of the study was to identify the Smartphone dependence among selected college students, to evaluate effects of Smartphone usage and its effects on health among college students, to compare the level of Smartphone dependence and its effects on health with selected colleges and to associate the Smartphone dependence with selected socio demographic variables. The research approach selected for the study was quantitative research approach and descriptive survey design. The study was conducted at selected colleges at Puducherry U.T. 560 samples were selected bases on purposive sampling technique. The researcher used structured questionnaire for data collection. The outcome of the study was evaluated by using descriptive and inferential statistics. The findings of the study revealed that out of the total samples the medical, engineering and dental students are more dependent on Smartphone (35.63%) but the less dependent of Smartphone are nursing students (30.24%) but the paramedical, arts and laws are in between medical students and nursing students(31.49%).and medical, engineering and dental students are more affected on health by usage of Smartphone (15.59%) but the less*

*affected on health are nursing students (13.75%) but the paramedical, arts and laws are in between medical students and nursing students(14.09%). There will be statistically significant difference between Smartphone dependence and its effects on health with selected colleges at  $p < 0.05$  level. There was a statistically significant association with level of dependency on Smartphone at  $p < 0.001$  level. Educational qualification, Smartphone use per day (hrs), had shown statistically significant association with level of dependency on Smartphone at  $p < 0.001$  level. Promotion of the IEC, creation of awareness among the college students can effectively control the Smartphone dependence.*

### **Keywords**

Smartphone, Smartphone Dependence, Health, College Students

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## **1. Introduction**

Globally, Smartphone dependence is increasing in the 21st century as more and more adolescents enjoy exploring their Smartphone's in their free hours. Smartphone overuse can be a sign of Smartphone addiction as per many studies of (Kim and Flanagan, 2014). The number of mobile phone users in the world is expected to pass the 5 billion mark by 2019. The number of Smartphone users is forecast to grow from 1.5 billion in 2014 to around 2.5 billion in 2019, with Smartphone penetration rates increasing as well (Statista, 2016). New research in US suggests that excessive use of Smartphone's, increases the risk for severe psychopathologies in adolescents and there is growing evidence of problematic use of Smartphone's that impacts both social and health aspects of users lives.

In India, Smartphone usage in 2014 starting 149 Million, whereas at the end of 2014 rapid increase in Smartphone Usage to 541 Million (The Mobile Economy in India, 2015). The increase in the use of smart phones in India is largely attributed to the availability of the Smartphone that starts at a price as low as Rs 3,000, which comes with features such as 3G, and 4G making internet usage much faster than the traditional 2G connection.

A Smartphone is a mobile phone (also known as cell phones) with an advanced mobile operating system which combines features of a personal computer operating system with other features useful for mobile or handheld use. Smartphone, which are usually pocket-sized, typically combine the features of a mobile phone, such as the abilities to place and receive voice calls and create and receive text messages, with those of other popular digital mobile devices like Personal Digital Assistants (PDAs), such as an event calendar, media player, video games, GPS navigation, digital camera and digital video camera. Most Smartphone can access the Internet and can run a variety of third-party

software components ("apps"). They typically have a color display with a graphical user interface that covers 70% or more of the front surface. The display is often a touch screen, which enables the user to use a virtual keyboard to type words and numbers and press onscreen icons to activate "app" features<sup>[4]</sup>.

Peoples are so dependence to their Smartphone that they often joke about being addicted. However, what many people still fail to realize is that Smartphone addiction is actually a very real problem affecting thousands across the globe. One in ten Smartphone users now admit to using their phones in the shower and during sex. The same figures even show that half of people use in while driving. It's already an enormous problem, but Smartphone addiction is likely to grow even more common due to the rising demand for and access to the handsets. That is not to mention the rapid advances in the technology that allow them to perform more duties at even faster speeds.

Out of all, investigator himself observed that the younger generation wherever they move at anytime they use the Smartphone without their knowledge. Hence the investigator decided to do the study on the Smartphone dependence and its effects on health among college students and the objectives of the study were:

1. To identify the Smartphone dependence among selected college students.
2. To evaluate effects of Smartphone usage and its effects on health among selected college students.
3. To compare the level of Smartphone dependence and its effects on health with selected colleges.
4. To associate the Smartphone dependence with selected socio demographic variables.

## **2. Methods**

The present study is conducted to explore the Smartphone dependence and its effects on health among college students in selected colleges at Puducherry U.T. The research approach adopted for the study was a quantitative research approach to accomplish the objectives of the study as appropriate. Descriptive survey research design was used to explore the Smartphone dependence and its effects on health among college students in selected colleges at Puducherry U.T. The study was conducted at selected colleges at Puducherry U.T. (Nursing, Medical, Dental, Paramedical, Engineering, Law, and Arts & Science). In this study, population comprises of all the college students at Puducherry U.T. The samples for this study were the college students with the age group of 18-21 years using Smartphone,

who were at selected colleges, satisfies inclusion criteria. In the present study, the sample size is 560 college students. Purposive sampling technique was used for this study.

### **Development of Data Collection Tool**

Instrument in research refers to the tool or equipment used for collecting data. The tool consists of three parts.

**Section A** consists of socio demographic variables such as age, sex, religion, educational qualification, living status, and type of Smartphone of the sample.

**Section B** consists of standardized tool **SMARTPHONE ADDICTION SCALE- SV (Min Kwon, 2013)** to assess the level of Smartphone dependence among college students.

**Section C** consists of 30 closed ended questionnaires to examine the impact of Smartphone usage and its effects on health among college students. The questions were related to ill effects of health. The samples were interviewed, the answer YES will carry ONE mark and answer NO will carry ZERO mark, the total score was 30.

## **3. Results**

### **3.1 Major Findings of the Study**

The followings were the major findings of the study.

The overall level of Smartphone dependence revealed that, majority 203(36.25%) had moderate level of dependence, 177(31.61%) had mild level of dependence, 104(18.57%) had severe level of dependence and 76(13.57%) had no dependence on Smartphone.

The overall level of health affected revealed that, majority 329(58.39%) had moderate level of health affected, 175(31.25%) had mild level of health affected and 58(10.36%) had severe level of health affected.

Since the result reveals, it shows that the medical, engineering and dental college students are more dependent on Smartphone (35.63%) but the less dependent of Smartphone are nursing students (30.24%) and the paramedical, laws and arts & science (31.49%) were moderate dependent on Smartphone.

Since the result reveals, it shows that the medical, engineering and dental college students were more affected on health by usage of Smartphone (15.59%) nursing students were less affected on health by usage of Smartphone (13.75%) and paramedical, laws, arts & science (14.09%) were moderate affected on health by usage of Smartphone.

There was a statistically significant difference in the Smartphone dependence between the dental college students and nursing students followed by medicine students and nursing students at  $p < 0.01$  level

Educational qualification, Smartphone use per day (hrs), Self evaluation of Smartphone dependence had shown statistically significant association with level of dependency on Smartphone at  $p < 0.001$  level.

## **4. Discussion**

The main focus of the present study is to explore the Smartphone dependence and its effects on health among college students in selected colleges at Puducherry U.T. The study findings were discussed based on the objectives as follows

### **4.1 Demographic Variables of Samples**

The majority 236(42.14%) were aged 19 years, 299(53.39%) were female, 347(61.96%) were living in urban area, 490(87.50%) were Hindus, 554(98.93%) were single, 80(14.29%) were nursing, medicine, dental, paramedical, engineering, arts & science and law students respectively. Regarding year of study majority, 318(56.79%) were second year students, 405(72.32%) were living with parents, 528(94.29%) were students, 141(25.18%) of fathers were self employed, 435(77.68%) were homemaker, 202(36.07%) had income of above 15000 per month, 485(86.61%) were using Android type of Smartphone, 191(34.11%) were using Smartphone for 1 – 2 yrs, 314(56.07%) were using Smartphone 1 – 5 hrs per day, 485(86.61%) were often repairing their Smartphone, 244( 43.57%) were using Smartphone for social network sites and 293(52.32%) were not addicted to Smartphone.

### **4.2 Findings based on Objective**

**The first objective** of the study was to identify the Smartphone dependence among selected college students and the findings showed that, majority 203(36.25%) had moderate level of dependence, 177(31.61%) had mild level of dependence, 104(18.57%) had severe level of dependence and 76(13.57%) had no dependence on Smartphone.

**The second objective** of the study was to evaluate effects of Smartphone usage on health among college students and the findings shows that majority 329(58.39%) had moderate level of health affected, 175(31.25%) had mild level of health affected and 58(10.36%) had severe level of health affected.

**The third objective** of the study was to compare the level of Smartphone dependence and its effects on health with selected colleges and the findings shows that multiple comparison between the various colleges on Smartphone dependence. It revealed that there was significant difference between the dental college and nursing college followed by medicine college and nursing college which was found to be statistically significant at  $p < 0.05$  level and that the multiple comparison between the various colleges on health affected by

Smartphone usage with selected colleges revealed that there was no significant difference in the level of health affected on Smartphone usage with selected colleges.

**The first hypothesis H<sub>1</sub>:** From the above results it is proven that there will be statistically significant difference between Smartphone dependence and its effects on health with selected colleges. Hence the research hypothesis **H<sub>1</sub>** was accepted.

**The fourth objective** of the study was to associate the Smartphone dependence with selected socio demographic variables reveals that the educational qualification, Smartphone use per day (hrs) and self evaluation of Smartphone dependence had shown statistically significant association  $p < 0.001$  level. Hence the research hypothesis **H<sub>2</sub>** was accepted.

## **5. Future Scopes and Implication**

### **5.1 Nursing Practice**

Smartphone dependence and its effects on health among college students can be well tackled by the pro-active approach of the nurses working the community area and other settings. They are the vital component of the health care delivery system. Systemic monitoring and promotion of the IEC, creation of awareness among the family members and the college students can effectively control the Smartphone dependence.

### **5.2 Nursing Education**

Nursing curriculum should include more content in the area of Smartphone dependence and its effects on health in the level of undergraduate and post graduate and creation of IEC materials related to health effects of Smartphone. Conference, workshops, seminars can be given for the nurses to impart education towards the Smartphone dependence and its effects on health.

### **5.3 Nursing Administration**

Nursing administrator should have a special focus to the aspect of Smartphone dependence and its effects on health. They play a vital role in planning, organizing, supervising and implementing Conference, workshops, seminars related to Smartphone dependence and its effects on health. Frequent in-service training and pre-service training program should be arranged. The nurse administrator should arrange for proper hands on training for the students in the aspect of Smartphone dependence in relation to the health effects.

### **5.4 Nursing Research**

The researcher believes that this study paves way for further research in this field of study. Smartphone dependence and its effects on health gives a lucid picture to understand

the nature of this problem. More qualitative study is needed in this field to understand in-depth about the phenomenon. The researcher himself plans to do qualitative study in the future. The generalization of the study can be made by further replication of the study in different settings.

### **5.5 Recommendation**

Based on the study findings, in order to decrease the Smartphone dependence and its effects on health the researcher proposes following recommendations.

A mixed-approach investigation consisting of both quantitative and qualitative method is recommended to provide a comprehensive understanding of addiction and its impact on students' academic achievement.

The amount of time allocated for use by counting calls sent, calls received, messages sent, and messages received, or on counting the frequency of appearance of addiction symptoms, whereas both are needed.

In future it is necessary to understanding the relationship between family environment and Smartphone dependence among college students.

Effective counselling of the college students and family members should be done in order to make them as supervisor to check whether whether usage Smartphone is limited in their house.

### **5.6 Conclusion**

Smartphone and advance technologies have both positive and negative aspects. They have not only helped improve worldwide communication, newer technology through new social media, social network sites, social informatics, and “social software” enables us to perform many jobs quickly and efficiently. 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 actual cause for addiction and to investigate more in depth the mental health aspects and solutions for Smartphone dependence.

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