

Original research article

Mobile phone dependence among medical students – A prospective study

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ABSTRACT:

Introduction: In recent years, mobile phones become sixth finger and a necessary evil in every ones life. those who has never born and who died are the only two does not use mobile phones. though there are many problems with mobile phones like, driving while speaking in cell phone, causes more accidents than drunken drive.

Objective: The aim of the study was to assess mobile phone dependence among undergraduate medical students of various medical colleges of Tamil nadu ,and kerala in south India

Material and Methods: This study was conducted among undergraduate medical students of various medical colleges in Tamil nadu and kerala the 1388 students in the were enrolled in the study.

Results: Out of 1388 participants, data were collected from 1351 students, and 861 (62.%) students were found to be dependent on the mobile phone.. Most of the mobile phone dependents were females 599 (69%) than males, majority were from the first year.

Conclusions: A total of 62.1% undergraduate medical students were mobile phone dependent. Health education about the use of mobile phone is necessary in the first year

Keywords: Mobile phone dependence, , undergraduate medical students

INTRODUCTION

The most dominant type of information and communication technology is the mobile phone, the use of which in the past few years, due to social impact, has grown substantially. Smartphones are based on the Internet and have a wide range of functions. In addition to making phone calls, users are able to play games, chat with friends, use messenger system, access web services (e.g., blogs, homepages, and social networks), and search for information. From 1983 to 2019, worldwide mobile phone subscriptions grew from zero to 9 billion, thus penetrating and spreading their tentacles in every strata of the society.

In recent years, there has been increasing concern regarding problematic use of mobile phones, and accordingly, it has been publicized extensively as an emerging social problem.

According to the psychiatrist, cell phone dependence can be considered as a new diagnostic entity as it has properties of excessive use, withdrawal, tolerance, and negative repercussions. One study observed the only 23% undergraduate medical students referred to some educational sites (newspaper, medical sites, general knowledge websites, current affairs magazines, etc.) on their cell phones and rest 77% respondents used it as an entertainment tool mainly, spending time on facebook, adult sites, movies, downloading music, YouTube, and sport websites. One more study concluded in their prospective cohort study that high frequency of mobile phone use at baseline was a risk factor for reporting sleep disturbances and symptoms of depression for the men and women at 1-year follow-up.

One more study showed in that co morbidities reported include sleep affectations, anxiety, stress, depression,, and consumption of substances, such as alcohol or tobacco, particularly in adolescents.

METHODOLOGY

The present study was conducted among undergraduate medical students of Medical colleges in tamil nadu and kerala , for mobile phone dependence during November to December 2019. The study participants were briefed regarding the purpose of study and were asked to participate voluntarily. It was decided to exclude those who were not using mobile phone, but none was found without use of mobile phone. All the queries raised by the students were answered by the investigators before actual data collection. All the 1388 students studying in the colleges were enrolled in the study. A predesigned Test of Mobile Phone Dependence (TMD Brief) consisting of total 12 questions about abstinence, abuse and interference with other activities, tolerance and lack of control, developed by Chóliz was used for collection of information. Socio-demographic information such as age, sex, and academic year of study was also asked to be filled in the proforma. Each item (question) in TMD brief was coded by the Likert-type scale as never-1, rarely-2, sometimes-3, often-4, and frequently-5. Traditional Likert's scale items were coded as strongly disagree-1, disagree-2, neutral-3, agree-4, and strongly agree-5. Therefore, the minimum and maximum score of TMD brief was 12 and 60, respectively. The participants scoring $\geq 50\%$, that is, score of ≥ 30 , were considered as mobile dependent..

DEMOGRAPHIC DETAILS OF STUDENTS

Characteristics	Category	Frequency%
Age (years)	<18	122(9%)
	18--20	554(41%)
	21--23	514(38%)
	≥ 24	162(12%)
Frequency of using mobiles daily	Below 2 hr	189(14%)
	2-5 hrs	891(66%)
	Above 6 hrs	270(20%)
Answering unknown/missedcalls	No	297(22%)
	yes	1053 (78%)
Body Mass Index (kg/m ²)	19-25	1269(94%)
	>25	81(6%)

Duration of using phone use	Less than 1 yrs	189(14%)
	1-3yrs	486(36%)
	3-5yrs	310(23%)
	More than 5yrs	364 (27%)
Daily Exercise, Walking,outdoor games,	Yes	283(21%)
	No	1067(79 %)
Family Type	Nuclear	1067(79%)
	Joint	283(21%)
Family Income in rupees per month	≤ 1,00,000	661(49%)
	>1,00,000	689(51%)
Types of apps using	whatsapp	1269(94%)
	Facebook ,	1202(89%)
	E- mail	1243(92%)
EXTRA CURRICULAR	Games,	851(63%)
	film,MUSIC	486(36%)
	Ppt	553(41%)
	animation	468(48%)
	softwares	189(14%)
Creative ,	283(21%)	
More than two mobile/network	580(43%)	
MOBILE PLUS laptop /tabs /tv	621(46%)	

RESULTS

Out of 1388 participants, data were collected from 1351 students, 861 (62.%) students were found to be dependent on the mobile phone.. Most of the mobile phone dependents were females 599 (69%) than males, majority were from the first year. logistic regression also proved first year as an independent risk factor for mobile dependence compared to second and third years.

DISCUSSION

The present cross-sectional study was conducted to assess mobile phone dependence among undergraduate medical students. It was found that 62.1% students were dependent on the mobile phone. Davey *et al.*, in their systematic review and meta-analysis reported that the smartphone addiction among Indian teens ranged from 39% to 44% as per fixed effects calculated, whereas Sunthlia *et al.*, observed that about 9% students had an issue of “problem mobile phone overuse.”.The present study showed that females were dependent on smartphones more than males; in addition, similar findings by Mok *et al.*, reported that females exhibited a higher level of smartphone addiction than males.The present study showed no statistically significant association between age and sex with mobile phone dependence and similar findings were revealed by Alosaimi *et al.*, First year students were more dependent than the second year and third year students. The causes of cell phone addiction are numerous. Cell phones are eating the brains of the younger generation through addiction. The main reasons for cell phone addiction are as follows:

Availability of internet: Internet makes things simpler nowadays and will help us to find anything and everything. Internet is the major factor which provokes people to use cell phones or smartphones more and more. Functionalities: Cell Phones provide wide variety of functions or features to its users. Most of the people check their phone for messages and calls if there is no vibration or ring which is in turn termed as addiction.

Video games available on the cell phones or smartphones compel the users to use them more. In modern smart phone market, gaming is shown as important feature of the phone which has the capability of addicting the users. Camera selfie addiction; more and more camera phones with very high pixels with dual, triple, with flash led front camera invented for video calling is being mostly used for taking selfie pictures and sharing it in social media immediately is another form of addiction . Apps and addiction; various apps drive many people to addiction to the extent of suicidal attempts, suicides, addiction to porno graphy, gambling and purchase of un wanted things due to online shopping apps.irresistable offers in food apps leads to repeated purchases and lead to addiction,

Anger, tension, depression, irritation, restlessness when cell phone network is low or battery is low.

Putting relationship at risk due to cell phone use.

A need to use cell phone more and more often for the same use.

Digital eye strains, discomfort associated with viewing a screen.

Neck problems due to excessive use of cell phone.

Male infertility due to radiation.low birth weigh babies and mis carriage in pregnant women using cell phone excessively

Lack of interest in other activities and hesitating to interact with people.Cell phone addiction cannot be easily treated. Like other addictions, there are no approved medical treatments for cell phone addiction. Following are some of the ways through which a person can overcome cell phone addiction. Self treatment: You have to set treatment by yourself for overcoming the cell phone addiction. If you want to stop some habits, you have to think. Set time limits: To stop the excess use of cell phones, you have to set time limits for the usage of the device. Switch it off: The only way to stop using cell phone is to switch it off and use only when needed. It is painful in the beginning but it is the effective way to overcome cell phone addiction. Interacting with people: Try to interact with family members and people which will reduce the stress of not using cell phones. Talking to someone is one of the effective ways to solve any problem.

1. Turn off your phone to the maximum extent.
2. Remove those excess apps which disturb you or provoke you to use the smart phone more.
3. One of the weirdest habits found in youngsters is using phones even in the bathroom. Keep the bathroom cell phone free.
4. Do not keep your cell phone in the bedroom as much as possible.
5. Stop caring about your cell phone. Instead care for people

As cellphones have become prevalent in modern society, some people have a significant issue with not being able to disengage from their cell phone. So-called “smart phones,” which combine functionality of an organizer, browsing the Internet, playing tunes, and taking pictures, only worsen the reliance on one’s cell phone. While using such devices for everyday tasks, work, and socializing with friends and family is perfectly normal, not being able to put them down while engaged in a conversation with your significant other or a friend who’s sitting in front of you may denote an increasing problem.

1. Track your cellphone use. Yes, it’s a pain to do, but the more you keep track of the time you spend messaging or talking on your cellphone

2. Start the weaning. Now that you know you’re spending 10 hours a week on messaging, it’s time to start cutting back. Take it slow and start with the least important activity you use your phone for. Commit to reducing the time spent on that phone activity just 10% the first week

3. Commit to being in the moment. Commit to turning the cell phone off, or at least putting it away out of sight, when engaged in a face-to-face conversation with another person

4. You don’t need that kind of connection. . Quality social, work and romantic relationships aren’t built on 180 character sarcastic notes constantly exchanged with one another. While it’s fun for a time, it’s not going to lead to a higher-quality relationship or a better, more enjoyable life (especially if it’s creating [anxiety](#) and problems in your existing life).

5. You’re not as important as you think you are. Some people check email via their cell phone incessantly because they believe something so important might come up it requires their immediate attention.. But for 99.9% of people and jobs, it is not. Even if you’re the CEO of a company, there’s virtually nothing that could come up that can’t wait until you get back to the office. Remember, if it’s **that important**, someone will call you.

6. Turn it off. Yes, that’s right. Turn it off. There’s nothing you need to do in the middle of the night that the cell phone will alert you to that won’t be there in the morning (unless you happen to be the President, then you might want to keep your cell phone handy). By turning it off and putting it away, you’re taking back conscious control of your life and this little piece of technology. Instead of it calling to you, you’re telling it, “Hey, I’ve had enough for one day. Seeya in the morning.” Set a deadline every evening for a time to retire the technology, and then don’t check or use it again until the next morning.

7. Technology works for us, not the other way around. If technology is taking control of your life — creating stress, anxiety, arguments with other people in your life, or financial hardships — then you have a backwards relationship with technology. Technology works *for us*. If it’s not working for you, you’re chosen to be on the losing side of the relationship, and it’s time to put a stake in the ground and take responsibility and control for your use of the technology. Set aside specific times of the day or evening you will use your cell

phone, for instance, rather than checking it every moment you get.

Cell phone addiction doesn't have to ruin your life, your work, or your relationships with others. If these tips still don't help, it might be a sign that cell phone addiction is more of an issue in your life than you realized. A psychotherapist who has experience in treating addictions can often help in such a case, and it is a treatment you should explore if you can't reduce cell phone use on your own.

CONCLUSIONS

A total of 62.1% undergraduate medical students were mobile phone dependent. Health education about the use of mobile phone is necessary in the first

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