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Impact of Short Term Mobile Phone Abstinence on Undergraduate Medical Students: A Qualitative Study

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ABSTRACT

Background: The purpose of the current study is to investigate the perceptions of completely abstaining oneself from using a smartphone for one whole day among medical students. This study is a unique initiative and it was experimented on a particular group of adolescent college students to completely abstain from using mobile phones for one whole day, and that specific day was coined as 'No Mobile Day'.

Methods: A total of 119 residential medical students participated in the study and they were instructed to abstain from any type of mobile phone or gadget usage for a period of 24 hours and they surrendered their mobile phones. A semi-structured questionnaire with open and close-ended questions was provided to the students at the end of the 24 hour period and the aims of the questionnaire are explained clearly to the respondents.

Results: In total, 12 invalid responses were deleted, leaving 107 valid responses for analysis. The qualitative data analysis is performed using a constant comparison method. Results obtained from the current findings indicate the presence of mobile phone addiction in this particular group to some extent. However, majority of the students enjoyed this unique experience of not using mobile phones and embraced the concept of "No Mobile Day".

Conclusion: Given the alarming increase in depression among adolescents and the number of psychosocial treatments being administered to young people, conducting such events would be a great boost to slowly overcome social anxiety and social deprivation.

INTRODUCTION

Nowadays, mobile phones have become one of the most prominent modes of communication and an integral part of life. However, it is well-known that both positive and negative consequences are associated with the usage of mobile phones [1]. Positive outcomes could be attributed to the usage of mobile phone applications (apps) for activities, such as diet management, smoking cessation, promoting physical activity, and management of chronic disorders [2]. Similarly, it is also an indispensable tool to communicate with people at ease. It is essential to call or text our family and friends, to get connected to the internet, email and listening to music for relaxation are some of the positive benefits of using mobile phones [3,4]. Likewise, the negative effects of using mobile phones are also

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many and are being widely studied. The most common repercussions contributing to the usage of mobile phones are social anxiety, sleep interference, dry eyes, delusion, and lower self-confidence [5]. Mobile and Wi-Fi radiations were reported to cause liver enzyme impairment, pyknotic nucleus and apoptosis in the brain cortex in animal studies and increase in reactive oxygen species in humans [6]. Addiction to mobile phone usage is on the increase, especially in adolescents [7]. The most common age group which is subjected to increased use of mobile phones is adolescents, which is not only due to the possession of these devices but it is believed that it greatly impacts the adolescents when compared to other age groups. Though mobile addiction has been reported worldwide, people still do prefer or want to abstain from mobile phone usage, which is very much similar to other types of addiction [8]. The current study is one such initiative and it was executed on a particular group of adolescent college students to completely abstain from using mobile phones for one whole day, and the particular day was coined as 'No Mobile Day'. The purpose of the current study is to investigate the perceptions of completely abstain from using a smartphone for one whole day among the medical students.

METHODOLOGY

A total of 119 residential students of both sex from a government medical college participated in the study which was initiated completely by the students on a voluntary basis. They were instructed to abstain from any type of mobile phone usage for a period of 24 hours and surrendered their mobile phones. A semi-structured questionnaire with open and close-ended questions was provided to the students at the end of the 24 hour period to ensure there is no bias or influence in their perception towards mobile phone or its usage. The aims of the questionnaire are clearly explained to the respondents. All the participants were undergraduate medical students from a government college of the Indian system of medicine (Yoga and Naturopathy) in Chennai, Tamilnadu (India). In a classroom setting, a total of 119 students from a government yoga and naturopathy medical college were selected to fill out the questionnaire using Google form. From the results, 12 invalid responses were deleted, leaving the remaining 107 valid responses for analysis.

DATA ANALYSIS

The resulting data as obtained from the semi-structured questionnaires was translated. The translation was independently checked for accuracy and initial open coding was used to analyze the transcripts by two researchers individually. The authors then met to review the coding and discussed the differences or discrepancies in coding, until a mutual consensus is reached. By comparing the codes, categories and the emerging themes were identified and further data analysis was performed using the constant comparison method.

RESULTS

Benefits of using mobile phone

Communication: The most common advantage in using a mobile phone as mentioned by the respondents is 'communication'. Mobile phones were used mainly in communicating with their family and friends.

- Communicating with friends
- Can speak to anyone at any time
- To contact anyone across the world, especially at times of emergency

Educational purposes: The adolescent medical college students found mobile to be a more useful, convenient and quicker tool for reference and education purposes which includes listening to lectures, referring to a dictionary, research articles, and reference of medical cases.

- Listening to good lectures
- Searching articles in a fraction of second

Entertainment: Listening to music, videos, movies, and casual browsing are few of the other reasons for using mobile phones. There is also a widespread usage of social networking applications, like Whatsapp, Facebook, and Tik Tok by the students.

- And a good time pass. Useful in leisure time

Other perceived benefits: A few other interesting benefits were also mentioned by the respondents including 'storage of files'. The mobile phone was also believed to be a very good companion to ensure the safety of girls, especially while traveling long distances and late at night.

- Safety while traveling a long distance and also for late-night security.
- Interestingly, many students did consider mobile phones to be 'time-saving'.

Drawbacks of using mobile phone: The participants were also asked about the susceptible drawbacks in using mobile phones. The common drawbacks mentioned by the respondents include radiation hazard, addiction, social deprivation, disturbed sleep and eye problems like eye irritation. Notably, some of the other few drawbacks as mentioned include social detachment or the inability to communicate with people around them.

- Always addicted to social media like Whatsapp, FB, tik tok
- Considering the precious time which is wasted is an important drawback, where one interesting response

mentioned how mobile phone usage leads to 'procrastination' or 'wasting time' or 'time stealing' due to the onset of social networking.

- Sometimes it leads to unwanted websites. Then it takes our time, then it makes me to simply see the screen alone for an hour. I don't know why? But at that time I will not access to anything, even I will not chat or text.

Addiction: A strong urge to use mobile phones was reported by a few of the respondents during the 'No Mobile Day'. Apart from boredom, there were also other mixed responses strongly suggesting addiction.

- I feel something missing.
- Felt some urge within me to touch that.
- I feel mobile in the pocket, even when it is not in my pocket.
- Something got detached from the routine life.

Social deprivation: Using mobile phones constantly reduces a healthy interaction among people and it leads to social deprivation.

Separating people and the bonds nearby.

I spend my free time much in it... And it made close people to a distant.

Reasons for participating: Several reasons were also addressed in this experiment which provoked their interest to participate in the study, mostly to assess themselves and their self-control.

- To feel how much I am addicted to my mobile phone.
- To check whether I had self-control over me and to experience what will happen without mobile phone.
- Was waiting to live without a phone and got the good chance.

Discomforts faced during the 'No Mobile Day': The most common discomforts mentioned by the respondents include 'not able to make phone calls' and not able to refer to subject related references.

- Slight Communication problems. I can't communicate with my family.
- Not able to convey any message; contacting others.
- Unable to use Google for study purposes; I was unable to use Google for referring.
- Can't search the medical words in class; There is difficulty to browse unknown words.

Not able to search any meaning or useful videos, in the required time.

Experiences shared: The respondents felt that it was a nice experience and they had time to interact with people around them which is more than usual.

- Something different... no words to say just simply happy.
- No phone calls no message on that day, feeling very happy because we use to speak together not facing the mobile we facing each other
- The respondents were happy that they managed to do their daily activity in a much more effective way.
- Slept earlier than normal days. I spent some extra time with my friends and roommates. I read some extra pages. And felt active than normal.
- Ate my lunch soon and enjoyed my lunchtime.
- The participants also liked the fact that they were able to spend more quality time with their real friends rather than their virtual friends.
- Free from social media. I can able to talk with my real friends.
- Even students who had used internet for education and reference purposes used alternate sources for referring without any disturbances.
- I interacted with people more than usual and I used manual books instead of Google.
- Not all participants were completely happy with the 'No Mobile Day', as there were also some unhappy responses.
- When I have doubt, I refer to Google, but that day I can't. So, it was irritating.

Suggestions and future directions: Various interesting suggestions were put forth by the participants after their personal experience with the event.

- A good initiative especially for the health benefits of Students, this knowledge should reach every people and they should know about the fact that it affects the health and everyone must try to follow.
- Of course, it should be implemented at worldwide.
- Yes we go back to (year) 1990's or 1980s because that was the time people were connected only by hearts.
- Nice day it's really good one day, maybe this day should come as 'self-awareness day' in the world's calendar.

- We can conduct events regarding our stress levels like a smiley day or active day by telling everyone to smile and treat others good the whole day.

DISCUSSION

The current findings clearly explained the presence of mobile phone addiction in this particular group to some extent. However, most students commemorated this unique experience for not using mobile phones and enjoyed the concept of "No Mobile Day". It is quite surprising that these young students did enjoy the experience especially because mobile phones have become an integral part of our daily life.

The mobile phone usage pattern is highly seen in the adolescent age group and it also applies to this particular group as well. While questioned about the pertinent benefits obtained in using mobile phones, communication with their kith and kin, and referring to educational materials were the two common responses as received. Entertainment, social networking, and safety were the other common responses. Most of the study participants were aware of the ill effects of excessive mobile phone usage.

The drawbacks of mobile phone usage mentioned by the participants include radiation hazard, addiction, social deprivation, disturbed sleep, and eye problems like eye irritation which is in line with the previous reports (3, 5). The major discomfort experienced during this experiment was the inability to communicate with their family and friends. Being medical college students, they mentioned their inability to access reference materials as a major discomfort as well. Most of the participants were seen happy to partake in the event. The most common reason for their happiness is because they could spend more quality time with their friends face-to-face and do their daily activity in a better manner. Eventually, the participants were glad to get out of their virtual world and spend more quality time with their real friends in real time.

It is crucial to understand that 'No Mobile Day' was initiated as a student-centered fun activity, which was

done out of compulsion. This might be the possible reason to witness more positive involvement and responses, which has also motivated them to carry out similar events in the impending future as well. We believe that this event has its significance and should be taken into account while delivering behavioral modifications in the adolescent age group.

The overall response for this 'No Mobile Day' was totally positive and the participants insisted that this activity must be followed once in a year or once in a month, which must not be confined only to colleges but also across the globe. Owing to the increased depression among adolescents and the prevailing number of psychosocial treatments being administered among people, events like this would mitigate the negative factors to slowly overcome.

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