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Impact of Mobile Phone Use on Various Dimensions of Health among Students during COVID-19

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Abstract

Although, all the countries have used various measures to reduce the transmission of the COVID-19 such as complete or partial lockdown, travel restrictions, and social restrictions, but the effectiveness of these measures completely depend on the cooperation of the society members. The knowledge, attitudes, and practices of people toward any disease play a key role in determining a community's readiness to accept behavioral change measures from government authorities. The aim of this study was to determine the impact of mobile phone use on various dimensions among students during COVID-19 of India. A cross-sectional online survey was conducted between 20th May and 05thJune 2020. 670 completed surveys were received. The data were collected by following questionnaires: demographic characteristics questionnaire, knowledge questionnaire. Descriptive and inferential statistics were used to analyse the data. The study result revealed that the students have more negative impacts (52.22%) than positive impacts (47.78%) and significance association was found with education of students ($P > 0.05$).

Keywords: COVID 19, Mobile phone, Dimension of health

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Introduction

As we all know that coronavirus disease also known as COVID-19 was first discovered in December 2019 at the Wuhan city of China. In March 2020, the World Health Organization (WHO) had declared it as a pandemic and issued guidelines to reduce the transmission. However presently, it has spread more than 200 countries. By following the WHO guidelines, each country is making strategic plan to control its transmission such as complete/partial lockdown, travel restrictions, social distancing, adopting quarantine measures, and providing health care services for COVID-19 patients. The success of government plans in controlling the COVID-19 mostly depends on cooperation of community people. The more the public will follow the guidelines issued by the government the early the COVID-19 would be controlled. If the people are negligent about the preventive instructions given by government, then it will be very difficult to control the disease. As of now, although the scientists around the world are struggling very hard to discover the vaccine/medicine effective against COVID-19 but still there is no such drug discovered.[1,2]

Communication is integral part in our life. It doesn't affect whether one is at work, in college or out in a social context. On the other hand, it would be used as a form of communication.

Using mobile phone for prolong period results health issues such as burning and tingling sensation on the skin of the head and extremities, fatigue, sleep disturbance, dizziness, loss of mental attention, reaction times, memory retentiveness, headache, malaise, and tachy.[3]

Hence, the researcher identified that there is need for assessing the impact of mobile phone use on various dimensions among students during COVID-19, which would help in identifying the knowledge, attitude, and practice gap and further help the health personals, policy maker, government stakeholders in providing awareness on those aspects.[4-6]

Objectives

1. To identify the impact of the use of the mobile phone on the various dimensions of students' life during COVID-19
2. To find an association between the impact of the use of the mobile phone with demographic variable.

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Methodology

A non-experimental web-based cross-sectional online survey was conducted between 20th May and 05th June 2020. Data collection was performed online using the Google form platform. The participation was made through social media. The questionnaire consists of two sections. The first section consists of demographics characteristics of participants. The second section has knowledge-based questions focus on impact of mobile phone during COVID 19. The people were also requested to circulate the survey link among their friends, family members, colleagues. The data were analyzed using descriptive and inferential statistics.[7,8]

Results

Consequence of impact of mobile phones is discussed in Tables 1-4 below:

Table 1: Demographic details of the study participants *n*=670

Demographic Characteristics	*Categories*	*F*	*(%)*
Age	18–30 years	519	77.46
	31–50 years	141	21.0
	>50 years	10	1.49
Gender	Male	130	19.40
	Female	540	83.59
Education	10th	102	15.22
	12th	93	13.88
	Graduation	391	58.35
	Post-graduation and above	84	12.53
Parents Occupation	Govt./Private Service	129	46.30
	Business	541	32.46
Duration of use per day	1–4 h	257	38.35
	5–8 h	366	54.62
	More than 8 h	47	7.01
Parents Monthly income	<10000 Rs.	345	51.49
	10,001–20,000	203	30.29
	20,001–30,000	81	12.08
	>30,000	41	6.11
Source of information on COVID-19	Internet	361	53.88
	Health care professionals	63	9.40
	Television	155	23.13
	Social media	91	13.58

Table 2: Overall impact of Mobile phone on various dimension *n*=670

Dimension	*Positive Impact*		*Negative Impact*	
	Frequency	*%*	*Frequency*	*%*
Physical	278	41.49	392	58.50
Social	389	58.05	281	41.94
Psychological	135	20.15	535	79.85
Intellectual	440	65.67	230	34.32

Table 3: Level of impact of Mobile phone use

Level of impact	*Positive Impact*		*Negative Impact*	
	Frequency	*%*	*Frequency*	*%*
High	22	3.28	357	53.28
Moderate	293	43.73	163	24.32
Low	355	52.98	150	22.38

Discussion

Now a days due to technological advancement, the mobile phones had become the important gadgets of human life.[9,10] At present, we are so much dependent on mobile phones. During the present pandemic as the government is instructing for social distancing and work from home, so the majority of people are doing their work with mobile phones/laptops only. On one hand, the mobiles have become useful for us, but on the other hand, it has created many physical, psychological, social and intellectual issues in human beings.[11-14] In the present study, 58.50% of participants had negative impacts of mobile phones on physical dimension, 41.94% had negative impacts of mobile phones on social dimension, 79.85 had negative impacts of mobile phones on psychological dimension, and 34.32% of participants had negative impacts of mobile phones on intellectual dimension of health.

Conclusion

This study assessed the impact of mobile phone during COVID-19. Mobile phones had both advantages and disadvantages. If one is becoming more addicted to them, then it is affecting the various dimensions of health. Therefore, awareness to be created among public to limit the use of mobile phones, further the awareness to be done for prioritizing the activities to be done through mobile and avoiding unnecessary engagement with the mobiles.

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Table 4: Association between the impact of the use of the mobile phone with demographic variable

Demographic Characteristics	*Categories*	*F*	*(%)*	*df*	*Chi Square (x^2)*	*Table value*	*P-value*
Age	18–30 years	519	77.46	3	1.7	7.8	0.4
	31–50 years	141	21.0				
	>50 years	10	1.49				
Gender	Male	130	19.40	1	3.5	3.8	0.2
	Female	540	83.59				
Education	10th	102	15.22	**3**	**10.1**	**7.8**	**0.4* (S)**
	12th	93	13.88				
	Graduation	391	58.35				
	Post-graduation and above	84	12.53				
Parents Occupation	Govt./Private Service	129	46.30	3	3.5	7.8	0.4
	Business	541	32.46				
Duration of use per day	1–4 h	257	38.35	2	4.1	5.9	0.5
	5–8 h	366	54.62				
	More than 8 h	47	7.01				
Parents Monthly income	<10,000 Rs.	345	51.49	3	3.7	7.8	0.4
	10,001–20,000	203	30.29				
	20,001–30,000	81	12.08				
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Source of information on COVID-19	Internet	361	53.88	3	2.9	7.8	0.4
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