



SOCIAL MEDIA AND THE ADOLESCENTS' SLEEP: THE 'U' TURN IMPACT OF SOCIAL MEDIA DURING THE COVID PANDEMIC

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ABSTRACT

Adolescence is a crucial period where an individual undergoes significant physical, social, cognitive, behavioural and emotional changes. The covid pandemic which turned the entire world upside down has brought a significant change in the rhythm of life. When the whole world came to a standstill on the declaration of lockdown, the social media got a transition as a coping agent for relieving stress among the teens. The users and usage time of social media increased drastically. An online survey is used for the purpose of collecting data from among the school and college students to understand the changing trends in the social media usage and their impacts on the sleep and sleeping patterns of the teens. The study also analyses the increase in the number of users during the lock down. A sample of 1631 subjects is taken for the conduct of the study. The study reveals that, even though the users and usage time of social media increased considerably, social media usage has no significant impact on sleep.

KEY WORDS: Social Media, Adolescent, Sleep, Pandemic, Lock Down

INTRODUCTION

Adolescents very eagerly look at setting up an identity by discovering their own social milieus that shape their thoughts and acts which make them a better individual. The technological boom which resulted in the flooding of mobile phones and social media became a trend setter in the thoughts and acts of the youth. Mobile phones seem to be surgically tied to their hands as it became an integral part which could not be avoided under any circumstances. Earlier studies show that children are prone to sleep epidemic due to the overnight usage of social media badly affecting their physical, mental, social and emotional health. The covid-19 pandemic had a huge effect on human health creating massive social and economic consequences. It also caused sudden lifestyle changes, through social distancing and isolation at home (Laura Di Renzo et.al, 2020). In this changed scenario social media became a great source of relief to the teens. Contrary to the results of the earlier studies which show the negative influence of social media on the mental health and

sleep pattern of teenagers, recent development shows that the impact of social media is taking a 'U' turn. This paper is an attempt to analyse this 'U' turn impact of social media and its effects on the mental health as well as the sleep and sleep patterns of the adolescent in the lock down world.

Technology and Social Media

Advancing technology is the most important feature of today's global capitalist world. Smart phones and social media platforms are examples of growing technology. A double-edged sword, social media, have many progressive impacts but its deleterious effects are always weighing high in the case of adolescents. The internet and social media has transformed the way in which this generation, commonly known as 'digital natives', interact and communicate with each other. (Royal Society for Public Health & Young Health Movement, 2017). Social media platforms have a global base with around 3.8 million users. (Digital 2020, Global Overview Report) Social media gained



much popularity among the youth mainly due to the emergence of smart phones, its advanced facilities like quality cameras and other tools and also because social media are becoming more visual than textual.

The present scenario demands the inevitability of smart phones to facilitate their academics as well as to enjoy their leisure time. The pre-pandemic concept with regard to the usage of smart phones and social media by the teens were not so favourable from the part of adults including parents. Studies show that these media also generate addiction among the teens as any other addictive elements creating stimulation patterns. (New Port Academy, 2019). Social media is being described as more addictive than cigarettes and alcohol. (Anushree Tandon et.al, 2020) But recent studies show the use of social media among the teens as a coping strategy to manage negative emotions evoked by the covid-19 crisis. (Verolien Cauberghe et.al, 2021)

Sleep and Teens in the pandemic world

Sound mind works only in a sound body and it is essential to have sound sleep for keeping our body always healthy. Sound sleep provides an active rest to all the muscles, brain and mind that is essential for their vigorous functioning while we are dynamic. An average of 7–8 hours of sleep has been recommended by the National Heart, Lung, and Blood Institute (NHLBI) and the National Sleep Foundation (NSF) (National Heart, Lung, and Blood Institute (NHLBI). “With scientific evidence of the risks of inadequate sleep mounting, sleep was, for the first time, included among the national health objectives” (Center for Disease Control (CDC), 2013). Earlier researches show that the presence of digital devices in adolescents’ bedrooms was observed to be associated with altered bedtime, less sleep efficiency, bedtime resistance or sleep anxiety (Milena Foerster et.al, 2019). Another study shows that “adolescent sleep is an important public health issue, as insufficient sleep is highly prevalent in this age group and has implications for mental health, obesity, academic performance and safety. Social media may be a contributing factor for the insufficient sleep of teenagers”. (Holly Scott et.al, 2019) But many recent studies reveal that they are having enough time to rest and sleep during pandemic though they used various social media platforms. (Holly Scott et.al, 2019) But many recent studies reveal that during pandemic though teens used various social media platforms they are having enough time to

rest and sleep. Some studies show that associations between social media use and sleep are complex, likely involving interactive and bi-directional effects, for example including the use of social media as a sleep aid. (Holly Scott et.al, 2019)

The present study is conducted in the state of Kerala, India, among the students of various aided and government colleges and schools. On 24 March 2020 the state government of Kerala had declared complete lockdown which significantly impacted the daily life of adolescents, resulting in school closures, movement to remote learning, restrictions on leaving their homes, and the inability to gather with friends etc. Social distancing measures on the one side increased time spent at home with family but on the other side it limited interactions with friends. This can badly affect their mental health as friendships and romantic relationships are considered as a key source of social support and identity exploration, as well as a unique training ground for long-term social competencies. (Adam A. Rogers et.al, 2021) Studies also reveal that an addiction to social messaging had a positive effect on life satisfaction during stressful life events. (Michelle Drouin, et.al, 2020).

HYPOTHESIS

There will be significant relationship between the social media usage, sleep and sleep patterns of teens.

SIGNIFICANCE OF THE STUDY

To know how a pandemic can bring a drastic change in the existing routine of the adolescents

To know whether the usage time of social media increased among the teenagers

To know whether the usage time of social media affected their sleep patterns during the pandemic.

METHODOLOGY

Data sample covers responses of 1631 teenage students from various colleges and schools in South Kerala and the data were collected by conducting an online survey through a questionnaire consisting of 16 questions assessing their use of social media and their sleep patterns.

Statistical techniques used for analysis:

Descriptive statistics, Pearson’s Product moment correlation, Chi-square test and ANOVA



ANALYSIS OF DATA

Table 1: Social Media Use

		Social Media Use		Total
		Yes	No	
Total	Students	1612	19	1631
	%	98.8%	1.2%	100 %

Pearson Chi-Square	34.816
p Value	.000

Table 2: Number of Social Media used by Students

		None	Only One	Two	Three	More than Three	
Total	Students	19	82	380	512	638	1631
	%	1.2%	5.0%	23.3%	31.4%	39.1%	100%

Pearson Chi-Square	164.661
P Value	.000

Table 3: Social Media Usage Time

		Social Media Usage Time				Total
		Less than 1 hr	1 - 3 hrs	3 - 5 hr	More than 5 hrs	
Total	Students	250	436	693	252	1631
	%	15.3%	26.7%	42.5%	15.5%	100%

Pearson Chi-Square	112.938
p Value	.000

Table 4: Total Sleep Time

		Total Sleep Time				Total
		1 to 5 hr	5 to 7 hr	7 to 8 hr	More than 8 hr	
Total	Students	77	274	470	810	1631
	%	4.7%	16.8%	28.8%	49.7%	100%

Pearson Chi-Square	22.540
p Value	.032



Table 5: Bed Time

		Bed Time				Total
		9 to 10	10 to 11	11 to 12	After 12	
Total	Students	257	866	377	131	1631
	%	15.8%	53.1%	23.1%	8.0%	100%

Pearson Chi-Square	35.321
P Value	.000

Table 6: Sound Sleep

		Sound Sleep		Total
		Yes	No	
Total	Students	1478	153	1631
	%	90.6%	9.4%	100%

Pearson Chi-Square	8.772
p Value	.067

Table 7: Social Media Influence on Sleep

		Social Media Influence on Sleep		Total
		Yes	No	
Total	Students	167	1464	1631
	%	10.2%	89.8%	100%

Pearson Chi-Square	3.876
p Value	.423

Table 8: Wakeup Time

		7 to 8 am	8 to 9 am	9 to 10 am	10 to 11 am	after 11 am	Total
Total	Students	489	798	125	142	77	1631
	%	30%	48.9%	7.7%	8.7%	4.7%	100%

Pearson Chi-Square	52.031
P Value	.000

Table 9: Sleep Satisfaction Level

		Very Good	Good	Average	Poor	Very Poor	Total
Total	Students	645	691	274	14	7	1631
	%	39.5%	42.4%	16.8%	0.9%	0.4%	100.0%

Pearson Chi-Square	19.458
P Value	.246



Table 10: Social Media Usage Time and Sound Sleep

			Yes	No	Total
Hours spent in social media usage	Less than 1 hr	Count	231	19	250
		%	92.4%	7.6%	100.0%
	1 to 3 hrs	Count	400	36	436
		%	91.7%	8.3%	100.0%
3 to 5 hr	Count	644	49	693	
	%	92.9%	7.1%	100.0%	
More than 5 hrs	Count	203	49	252	
	%	80.6%	19.4%	100.0%	
Total		Count	1478	153	1631
		%	90.6%	9.4%	100.0%

Table 11: Social Media Usage Time and Sleep Satisfaction

			Very Good	Good	Average	Poor	Very Poor	
Hours spent in social media usage	Less than 1 hr	Count	119	94	36	0	1	250
		%	47.6%	37.6%	14.4%	0.0%	0.4%	100.0%
	1 to 3 hrs	Count	156	191	84	4	1	436
		%	35.8%	43.8%	19.3%	0.9%	0.2%	100.0%
3 to 5 hr	Count	291	314	81	7	0	693	
	%	42.0%	45.3%	11.7%	1.0%	0.0%	100.0%	
More than 5 hrs	Count	79	92	73	3	5	252	
	%	31.3%	36.5%	29.0%	1.2%	2.0%	100.0%	
Total		Count	645	691	274	14	7	1631
		%	39.5%	42.4%	16.8%	0.9%	0.4%	100.0%

Pearson Chi-Square	71.687
P Value	.000

RESULTS AND FINDINGS OF THE STUDY

- 1) The relationship of social media usage among the teens:

Since the study is carried out during this pandemic it is found that there is a considerable increase in the number of users of smart phones / social media and the duration of the use of social media among the teens.

- 2) The relationship between social media usage, sleep and sleep patterns among the teens:

Even though the users and usage time of social media increased considerably, social media usage has no significant impact on sleep. This might be due to the prevailing condition of the pandemic where the students are getting ample time for sleep. Majority of the samples are getting sufficient sleep but not according to the Circadian Rhythm. This shows that there is a significant relationship between social media usage and the sleeping patterns among the teens.

CONCLUSION

Since the study is conducted during the pandemic it is concluded that there is no significant influence of social media usage on the sleep of the teens but the sleep patterns have changed. Many of them are getting enough time to rest and sleep due to the lockdown situation. It is also found that their sleeping hours have increased to more 8 hours. As expected, during the lockdown people increased the usage of digital media near bedtime. However, this change in digital media use did not affect sleep habits. It is also found that there is no significant difference in the social media usage among female and male students.

REFERENCES

1. National Heart, Lung, and Blood Institute (NHLBI) Sleep Deprivation and Deficiency Retrieved from <https://www.nhlbi.nih.gov/health-topics/sleep-deprivation-and-deficiency>.
2. Centre for Disease Control (CDC) Health Behaviors of Adults: United States, 2008–2010 (Vital and Health Statistics, Series 10, Number 257)



- National Centre for Health Statistics; 2013. Retrieved from http://www.cdc.gov/nchs/data/series/sr_10/sr10_257.pdf.
3. Digital 2020, Global Overview Report Retrieved from, <https://wearesocial.com/blog/2020/01/digital-2020-3-8-billion-people-use-social-media>.
 4. New Port Academy, Effects of social media on Teenagers.(2019). retrieved from <https://www.newportacademy.com/resources/well-being/effect-of-social-media-on-teenagers/>
 5. Milena Foerster, Andrea Henneke , ShalaChetty-Mhlanga , Martin Rössli. (2019). Impact of Adolescents' Screen Time and Nocturnal Mobile Phone-Related Awakenings on Sleep and General Health Symptoms: A Prospective Cohort Study. *International Journal of Environmental Research and Public Health*. 16(3), 518, Retrieved from, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6388165/>
 6. Royal Society for Public Health, & Young Health Movement. Status of Mind, Social media and young people' s mental health and wellbeing. Royal Society for Public Health, (2017).Retrieved from <https://www.rsph.org.uk/static/uploaded/d125b27c-0b62-41c5-a2c0155a8887cd01.pdf>.
 7. Anushree Tandon, PuneetKaur, AmandeepDhir, MattiMäntymäki.(2020) Sleepless due to social media? Investigating problematic sleep due to social media and social media sleep hygiene, *Computers in Human Behaviour*, Volume 113, 106487. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0747563220302399#bib68>
 8. Verolien Cauberghe, Ini Van Wesenbeeck, Steffi De Jans, LiselotHudders, and KoenPonnet.(2021). How Adolescents Use Social Media to Cope with Feelings of Loneliness and Anxiety During COVID-19 Lockdown. *Cyberpsychology, Behavior, and Social Networking* Volume 24, Number 4, Mary Ann Liebert, Inc. DOI: 10.1089/cyber.2020.0478, Retrieved from, <https://www.liebertpub.com/doi/pdf/10.1089/cyber.2020.0478>
 9. Adam A. Rogers, Thao Ha, and Sydney Ockea. Adolescents' Perceived Socio-Emotional Impact of COVID-19 and Implications for Mental Health: Results From a U.S. - Based Mixed-Methods Study.(2021) *J Adolesc Health*. 68(1): 43–52. Published online 2020 Nov 2. doi: 10.1016/j.jadohealth.2020.09.039. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7605752>
 10. Laura Di Renzo, Paola Gualtieri, Francesca Pivari, Laura Soldati, AldaAttinà, Giulia Cinelli, Claudia Leggeri, Giovanna Caparello, Luigi Barrea, Francesco Scerbo, Ernesto Esposito &Antonino De Lorenzo. Eating habits and lifestyle changes during COVID-19 lockdown: an Italian survey.(2020).*Journal of Translational Medicine* volume 18, Article number: 229, retrieved from , <https://translational-medicine.biomedcentral.com/articles/10.1186/s12967-020-02399-5>.
 11. Michelle Drouin, Brandon T. McDaniel, Jessica Pater, and Tammy Toscos. How Parents and Their Children Used Social Media and Technology at the Beginning of the COVID-19 Pandemic and Associations with Anxiety, Cyberpsychology, Behavior, and Social Networking Volume 23, Number 11, 2020 Mary Ann Liebert, Inc. DOI: 10.1089/cyber.2020.0284, retrieved from <https://www.liebertpub.com/doi/10.1089/CYBER.2020.0284>.
 12. Holly Scott, Stephany M Biello and Heather Cleland Woods. Social media use and adolescent sleep patterns: cross-sectional findings from the U.K Millennium Cohort Study.(2019).*BMJ Open* 9(9):e031161DOI:10.1136/bmjopen-2019-031161, retrieved From https://www.researchgate.net/publication/336744824_Social_media_use_and_adolescent_sleep_patterns_crosssectional_findings_from_the_UK_millennium_cohort_study.
 13. HollyScott, StephanyM.Biello, and Heather ClelandWoods. Identifying drivers for bedtime social media use despite sleep costs: The adolescent perspective.(2019). *Sleep Health*, Volume 5, Issue 6, Pages 539-545 retrieved from <https://www.sciencedirect.com/science/article/pii/S2352721819301457>.