

# Influence of Social Media Networks on Health and Lifestyle Pattern among Adolescent Girls during the COVID Pandemic

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**Abstract:** Late adolescence is the period of growth between the age group of 18 and 24 years which is the time of frequent change and exploration. So, Social media use by these late adolescents, are currently more as spending most of their waking hours using social media, neglecting real time interactions and the rest of their duties. In this COVID - 19 pandemic, as all are working as well as learning from home due to spread of disease, social media usage was increased. Hence the study was undertaken with the objective to assess the health and lifestyle changes due to screen use among the late adolescent girls. The study comprised of 100 late adolescent girls whose age group was between 18 and 24 years. A questionnaire comprising details on the use of social media applications, anthropometric measurements, dietary and lifestyle practices were created as Google form and it was sent through WhatsApp and e-mail. Educational material was designed and sessions were conducted to create awareness among the study participants. The findings of the study revealed that there was an increase in the bodyweight of girls at overweight and obese category due to over use of electronic gadgets (mobile phones) without any movements, high intake of meals and snacks; because of study and work from home. Also their sleeping pattern was changed because of usage of social media which delays sleep. And 84 percent of the respondents had health and mental disturbances due to screen usage. They also felt social media has been sometimes filled with unwanted news and also addiction towards its usage makes feel stressed. Awareness was given to decrease their screen time and improve sleep and health by balancing the use of social media applications such as fixing time for use, not using before sleep and in-between sleep by turning the devices to switch off airplane mode and practice of no mobile day on a day of the week were all the practical measures.

**Keywords:** Late adolescence, screen time, work from home, lifestyle, social media

## 1. Introduction

One of the incredible by-products of media as a result of increased digitalization is the emergence of social media networks. A wonderful platform for people irrespective of any age group you belong. Some of the common and widely used social media platforms include Face book, Snap chat, WhatsApp, and many among others. [1]

Late adolescence is the period of growth between the age group of 18 and 24 years. It is the time of frequent change and exploration that covers many aspects of their life like home, family, work, school, role and resources. Their growth will be physically complete during this period. They start becoming mentally stable and intimate. They start learning the skills required for their life roles. They get ability to balance the emotions and take life decisions. [4]

Social media has exploded as a category of online discussion where people create content, share, bookmark and network at an extraordinary rate. Social networking sites connect people by creating personal profiles, inviting friends to those profiles, and sending instant messages. These include any type of information, like photos, videos, audios etc... Social networking sites are having high recognition, specifically among young Internet users. [3]

Spending too much time online, most especially on social media, make people not to concentrate on their work. People who spend much time online will be often having sedentary lifestyles. This may increase their risk for diabetes, and other health complications that can shorten their lifespan. Furthermore, most people who are often using social media have unhealthy sleeping habits and this makes them susceptible to a lot of health complications. [6]

## 2. Materials and Methods

### 1) Selection of study area and study participants:

The study was proposed to analyze the influence of social media networks on health and lifestyle of adolescent girls during this COVID - 19 pandemic. Adolescent girls of age group between 18 and 24 years were selected by purposive sampling method as this age group representing late adolescents has wider access to social media networks. The details on the use of social media networks were elicited using Google forms online among 100 late adolescent girls.

### 2) Designing Research tool and Collection of Data:

Anything that becomes a means of collecting information for a study is called a research tool or a research instrument. A well-structured Google form to elicit the required data on the use of social media applications, health status, dietary and lifestyle practices was designed.

General information includes the Name of the Respondent, Age, Mobile Number and Email Id which helps to prevent the confusion at the time of data entry. These in formations were recorded to know the general details of the respondents for easy communication in the further research.

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Body Mass Index (BMI) is a simple index of height and weight that is commonly used to classify underweight and obesity in humans. So, it was included in data collection.

Dietary pattern related to food habits, change in Timing of meal, Number of meal(s), Screen usage during the Meal, Snacking over screen usage, Effect of screen usage on food intake, quantity of intake of junk foods and fast foods were elicited.

The lifestyle practices of the late adolescent girls before and after the COVID pandemic, related to regular physical activity practice, sleep pattern which includes the difference in the timing and duration of sleep, effect of usage of social networks on sleep and stress pattern during the pandemic and due to social media use were elicited.

### 3) Creating awareness and education on the use of Social Media

Educational awareness was given once a week for a period of 1 month during the month of April 2021. Modules on Social media awareness, Right use of social media, Balanced diet and healthy eating and some of the tips to reduce online time which helps to balance their social media use and healthy eating were sent to them. Power point presentation and posters were the tools used for communication.

### 4) Statistical Interpretation of data:

Statistical tests including frequency, percentage, and Pearson rank correlation were used to represent the data. Consolidated data were analysed using SPSS statistic software and Microsoft excel. The data collected was consolidated and presented as tables, graphs and charts for much clear interpretation of the data.

## 3. Results

### 1) Descriptions of General Information of the study participants

Among 100 study participants, 42 respondents were in between the age group 18 and 21 years and 58 respondents were in between the age group of 22 and 24 years. And 70 percent belonged to student category from which 32 were pursuing their under graduate course and 38 were pursuing their post graduate course. This shows that there was an increase in the educational qualification among female in India. And it was also noted that 20 percent were employed as Supervisor, IT Professionals, Accounts officer, and so on. Ten percent were unemployed as they were searching for jobs and preparing for government exams.

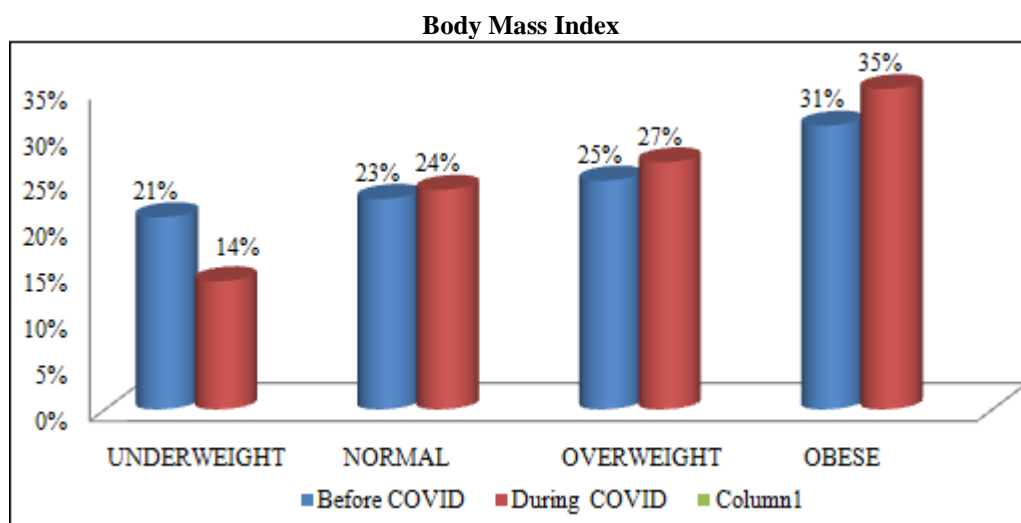
### General Information of the study participants

**Table 1:** Descriptions of General Information of the study participants, N=100

Variables	Frequency
<b>Age in years</b>	
18 – 21	42
22 – 24	58
<b>Category</b>	
Student	70
Employed	20
Unemployed	10

### 2) Body Mass Index (BMI) of the study participants

The Body Mass Index (BMI) of the selected late adolescent girls based on the Asia-Pacific BMI classification, 2014 was alarming that the overweight and obese category was gradually increased during the COVID pandemic and it was also noted that underweight category was decreased from 21 to 14 percent. The details are depicted in Figure 1. This was due to over use of electronic gadgets (mobile phones) without any movements, high intake of meals and snacks-because of learn from home, online class, work from home, and lock down. Eating, physical activity and other weight-related lifestyle behaviors are impacted by the COVID-19 crisis.



**Figure 1:** Body Mass Index (BMI) of the study participants (N=100)

### 3) Screen usage of the study participants

The study participants used the social media applications to know General information and for communication with friends and family before the COVID pandemic, but during the COVID pandemic they also started using to search for cooking websites, for entertainment purposes, for Browsing new updates, and to know COVID related information due to its wide usage and as they spend more time on social media. 84 percent of the respondents had health and mental disturbances due to screen usage. The common problems noted among them were frequent head ache, eye irritation, tiredness and insomnia. And some were attributed to negativity and loneliness problems.

#### Screen usage of the study participants

**Table 2:** Descriptions of screen usage of the study participants, N=100 (Multiple response)

Variables	Frequency	
	Before COVID (percent)	During COVID (percent)
Purpose		
General information	75	78
To know COVID related information	12	77
Educational Information	59	64
Browsing new updates	67	79
Health and Beauty tips	45	60
Communication with friends and family	74	87
Cooking websites	37	77
Entertainment	48	78
Online shopping	33	36
<b>Health and mental disturbances</b>		
Frequent head ache	35	
Eye irritation	47	
Tiredness	38	
Negativity	10	
Loneliness	19	
Insomnia (sleeplessness)	36	
None	16	

### 4) Dietary pattern of the study participants

Among the 100 study participants 94 were non- vegetarian and only six were vegetarian and no study participant was ova vegetarian. Non- vegetarianism was more prominent among the respondents. 43 percent of the study participants do not snack over screen use while 14 percent were sure that they snack over screen use regularly. And remaining 43 percent may sometimes snack due to hunger or skipped meal. 64 percent take three no. of meals per day before the COVID pandemic, but the three meal pattern was decreased during the pandemic because of the disturbances in the food intake and physical activity pattern. But the number of meals taken is comparatively increased during the COVID pandemic due to learn from home, online classes, work from home and lockdown. Consumption of junk foods and fast foods before the pandemic was 30 percent who consume once a week and 25 percent who consume twice a week. But the COVID pandemic drastically reduced the intake of these fast foods and junk foods because of fear of going out due to the spread of disease.

### Dietary pattern of the study participants

**Table 3:** Descriptions of dietary pattern of the study participants, N= 100

Variables	Frequency	
<b>Food habits</b>		
Vegetarian	6	
Non- vegetarian	94	
Ova- vegetarian	-	
<b>Snacking over screen use</b>		
Yes	14	
No	43	
Sometimes	43	
<b>Number of meals</b>	<b>Before COVID</b>	<b>During COVID</b>
Two	1	10
Three	64	48
Four	29	37
Above four	6	5
<b>Eating junk foods or fast foods</b>	<b>Before COVID</b>	<b>During COVID</b>
Once a week	30	11
Twice a week	25	12
More than twice	11	10
Once a month	22	23
Occasionally	9	39
None	3	5

### 5) Lifestyle practices of the study participants

Among 100 respondents, 38 do walking as their regular physical activity. And 22 prefer exercise and six prefer yoga. 30 percent of the respondents do not prefer any physical activity. Due to this COVID pandemic, many started to do some regular physical activity as they feel being home without moving out can make them lazy as well as obese. Some physical activity is definitely needed during this pandemic as we all are being home. Because this pandemic may make us lazy even to do simple activities. Sleeping quality was good among 53 study participants as they sleep for extra hours during the COVID pandemic. Low quality sleep was found among 23 percent due to sleep disturbances like negativity and bad dreams and 24 have irregular sleep due to less physical activity. 70 percent of the study participants had delayed sleep in which 36 were having delayed sleep sometimes and 34 were having regularly. The reasons were social media use, health disturbances, skipped meals and afternoon sleep. 35 percent were stressed due to social media use, because they felt it has been sometimes filled with unwanted information and addiction towards its usage makes feel stressed.

#### Lifestyle practices of the study participants

**Table 4:** Descriptions of Lifestyle practices of the study participants, N= 100

Variables	Frequency
<b>Regular Physical activity practice</b>	
Exercise	22
Yoga	6
Walking	38
Jogging	2
None	30
others	2
<b>Sleeping quality</b>	
Good	53

Bad	23
Irregular	24
<b>Delayed sleep time</b>	
Yes	36
No	30
Sometimes	34
<b>Stress due to social media</b>	
Yes	10
No	65
Sometimes	25

**vi. Statistical interpretation of the data**

There was a positive correlation of 0.873, between delayed sleep time and timing of usage of social media among the study participants and also there was a positive correlation of 0.805 between sleeping quality and Social media use before sleep of the study participants. Both correlations were significant at 0.01 levels. The positive correlation indicates that the values both variables tend to increase together.

**Statistical interpretation of the data**

**Table 5:** The relationship between Two variables among the study participants, (N= 100)

Timing of screen usage	N	Delayed sleep time	N	Pearson correlation
10.00pm	33	Yes	36	.873**
11.00pm	41	No	30	
12.00pm	14	Sometimes	34	
After 12.00am	12			
Sleeping quality	N	Social media use before sleep	N	Pearson correlation
Good	53	Use	77	.805**
Bad	23	Do not use	9	
Irregular	24	Sometimes use	14	

\*\*Correlation is significant at the 0.01 level (2-tailed)

**4. Conclusion**

The research that attempted to study the influence of social media networks and dietary pattern and lifestyle practices, summarized that the use of social media applications by the adolescent girls in the age group of 18 to 24 years has drastically increased and has a disturbed food intake pattern and changes in sleep pattern also the physical activity pattern especially during the COVID Pandemic. Furthermore the adolescent girls expressed the dual response as both beneficial and detrimental effects on the use of social media applications. The awareness and education measures on the right use of social media applications done during the study includes the suggestions to balance the use of social media applications such as fixing time for use, not using before sleep and in-between sleep, by turning the devices to switch off or airplane mode during sleep and practice of no mobile day on a day of the week were all the practical measures. This will have a positive approach by the population group’s especially younger generation to use the social media applications in the right way for knowledge sharing and communication process.

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