

# Social Media Use and Psychosocial Implications of Covid-19 Pandemic among Adolescent Students

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## Abstract

COVID-19 has been an unexpected crisis period, directing the minds of people into fear and anxiety. Social distancing being a major preventive activity to overcome this contagious disease, which led to affect all aspects of life worldwide. The new pandemic experience has highly affected the psychosocial aspects of adolescents. Social media has become the centre of communication during this isolated period. Classroom learning has changed to virtual teaching during the lockdown period. A research was conducted to analyse the influence of COVID-19 on adolescents' social media usages. The study focused on social media usage and its impact on adolescents' psycho-social behaviour. Participants were 287 adolescent students from 6 mostly affected states of India. Data gathering was carried out during the COVID -19 Lockdown in India with a self-structured online questionnaire. The respondents have not agreed that online classes are better than classroom learning. There was a high increase in the use of social media during the lockdown period. Social media has helped them to cope with the isolated situation and has led to an increase in their creativity. WhatsApp, YouTube, Facebook, and Instagram are the prominent social media used during this pandemic situation.

**Keywords:** Adolescents, Social media, COVID-19, Pandemic, Online Education, Anxiety, Depression.

**JEL Classification:** I15, I21, I29.

## 1. Introduction

The contagious disease COVID-19 has created chaos in all aspects around the world. All nations introduced spatial distancing as a good remedy to overcome the disease. COVID-19 pandemic

outbreak put a tremendous strain on the social, economic, and psychological aspects of the people. Travel restrictions, self-quarantines, bans on gatherings, and mobility control changed the social condition worldwide (Ferrara, 2020). During the pandemic period, people exchange news and information through social media. The situational information helped respond to the epidemic (Li et al., 2020).

In this worse situation, man depended on social media for communication. Social media took the central stage in all aspects of people. Most of the activities are controlled by technology through online and social media. COVID-19 pandemic has created uncertainty in the life of the people. It has created fear, anxiety, depression, stress, and financial crisis. People engaged themselves in social media to overcome this pandemic and isolated situation. Technology has been used for work at home, study at home, social connectedness, and entertainment. The strong determination of WHO played an important role to make people aware of the new disease (Szmuda et al., 2020). The technology has helped to reduce the psychological impact of COVID-19 and it makes it possible to communicate with each other on different matters. The excessive use of social media during COVID-19 carries risks such as gambling, viewing of pornography, video gaming, and social media addiction (Kiraly et al., 2020). Modern society depends more on social media and they are complacent about sharing content without bothering whether it is accurate or not. The sharing of false content related to COVID-19 negatively affects the people during the pandemic created by the deadly disease (Pennycook et al., 2020). The teen is more selective to share social media content (Patchin & Hinduja, 2010). The speedy spreading of the virus reduced the face-to-face interaction (Fegert & Schulze, 2020).

## 2. Literature Review

The social distancing related to the COVID-19 pandemic has shaken the relationship and has also revealed the quality of the relationship (Jr et al., 2020). Through social media platforms especially Instagram adolescents post content, images to promote social distancing instead of face-to-face interactions (Andrews & Foulkes, 2020). The uncontrolled spread of the disease rises fear and anxiety among people. Physical distress leads to an increase in the level of anxiety and degree of fear among adolescences (McKay et al., 2020).

Stay-at home disrupts the daily life of people and gives financial worries and loneliness. The study revealed that this pandemic was positively associated with health, anxiety and financial

worries (Tull et al., 2020). During the COVID-19 pandemic, people have a high level of anxiety and depression than before. Social isolation and COVID-19 news have created more tension and fear among people (Luo et al., 2020). People are thinking more about the coronavirus crisis and it leads to mental disturbance (Huang & Zhao, 2020). Most of the adolescents have followed social distancing due to social responsibility, they have avoided others to be safe and healthy and the state is on Lockdown (Oosterhoff et al., 2020). During the COVID-19 pandemic, numbers of social media (Facebook, Twitter, Instagram, and TikTok) users have increased enormously. There is an increase in the dissemination of misinformation spreading through social media videos creating bias and conflict of interest (Moran, n.d.). Changing lifestyle was the impact of COVID-19. (Phumaphi et al., 2020). A recent study shows that, during the COVID-19 pandemic, the level of depression, anxiety, and problematic Smartphone usages have increased. Another study explored that men have a high level of depression than women (Elhai et al., 2020). Instead of media richness, the information related to the crisis highly affects social media engagement (Chen et al., 2020). The level of anxiety has increased during the crisis period (Jungmann & Witthöft, 2020). Anxiety, loneliness, and social isolation are closely related to each other (Loades et al., 2020). Psychological diseases and sleep disorders are rated high due to stressful pandemic (Casagrande et al., 2020). Acute panic, depression, anxiety, and stress disorders are the result of quarantine (Dubey et al., 2020). High anxiety levels and stress are the results of social distancing (Fegert et al., 2020). Quarantined children and adolescents experience greater psychological distress than non-quarantined children and adolescents (Saurabh & Ranjan, 2020). Timely communication on the international pandemic outbreak has reduced the intensity of its spreading (La et al., 2020).

COVID-19 have affected the emotions, behaviour, lifestyle, and peer parent relationship of adolescents (Buzzi et al., 2020). Stress and reduced sleep quality are the results of the emerged new virus epidemic (Xiao et al., 2020). The longitudinal study revealed that the adolescent's social media use increased in the evening and it leads to a late bed time (Maksniemi et al., 2022). The students had poor quality of sleep during COVID pandemic (Maestro et al., 2021). The problematic use of social media and loneliness closely related each other. This adversely effected the social skills of the adolescents (Wu et al ., 2024). During the COVID Lockdown social media use negatively affects the student's psychological and social liability (Cho et al., 2023).

The present study has focused on the prominent usage of social media sites and deviations

between before and during COVID-19. It also examines their perception of online class learning and the effect of social media during this pandemic situation. This study attempted to fill in the research gap by analysing social media and its psycho-social impact on adolescents during COVID-19.

### **3. Methodology**

#### **3.1. Research Design and sample**

The targeted population comprises adolescents aged between 10 to 19 years. The respondents in the study were sampled by Simple Random Sampling. The respondents were chosen by lottery method. The statistical analysis and data interpretation was done by using SPSS IBM 20 version software. The descriptive research identified the effect of social media during COVID- 19 pandemic and Lockdown by using a self-structured questionnaire. The questionnaire contains 29 questions related to their social media use during COVID 19 Pandemic and Social Demographic Information. When maintaining respondents' privacy while asking questions, the identity of the respondents was kept hidden.

The data were collected by online Google Form and 287 adolescents from 18 districts of 6 states have participated in the study. The COVID -19 pandemic has been highly affected in these states of India. Data gathering was carried out during COVID-19 Lockdown. It was challenging to obtain permission and collect data during the COVID 19 pandemic. The study conducted was done only in a few districts so it lacks external validity for a certain level.

#### **3.2. Objectives and Hypothesis**

The main objective of this study is to understand adolescents' uses of social media and its effects. The study focused mainly on social media sites and the purposes of using these sites during the lockdown period. The current study focuses on time spent on social media before and during COVID-19 break down. The study analysed the effects of social media during the pandemic situation. The study also identified the perception of adolescents about social media and its effects during the pandemic time.

H<sub>1</sub>: There is no difference between social media usages before and during COVID 19 lockdown.

H<sub>2</sub>: There is no significant relationship between anxiety about COVID-19 and feeling anxious when using social media during COVID-19.

H<sub>3</sub>: There is no significant relationship between the demographic factor of respondents and the effects of social media.

### 3.3 Research Analysis

The study tool included demographic information, descriptive statistics, ANOVA, and chi-square tests. The analysis was conducted using the SPSS software package. The study inquired about the effects and use of social media before and during the COVID-19 pandemic. The demographic details include gender, age, education, religion, family type, and people living in a household. Through multiple choice questions, the researcher has identified the most preferred social networking sites and their purposes. The analysis has been done through Cross tabulation. Social media usages before and during COVID-19 were compared and analysed with mean. The relationship between feeling anxious about COVID-19 and feeling anxious when using social media during COVID-19 is proved through the Pearson Chi-Square test. Pearson chi-square and one way ANOVA are used to analyse the relationship between demographic characteristics and social media effects. The perception related to the effects of social media is scored on a seven-point scale. Respondents gave their views on young people who spend an increased amount of time in front of digital screens are more likely to exhibit symptoms of depression. Most of the parents constantly complained that young people are addicted to social media and using of smart phones increased. Social media has created an innovative method of study, during the COVID-19 Lockdown, reflecting on online classes being better than classroom education, adolescents' conscious about the amount of time they are spending on social media, and using social media for positive content such as entertainment, humour, and content creation and also them using social media for negative content such as sharing risky behaviours, cyber-bullying, and stressed postings. Social media could be considered as a fantastic tool for uniting people during COVID-19 Lockdown which is depicted in descriptive statistics.

## 4. Results and Discussions

### 4.1. Socio-Demographic Characteristics

The socio-demographic characteristics, mean scores, and SD are summarised in **Table 1**. The study comprised 287 adolescent students aged 10 to 19. The respondents were 46.3 percent male, 53 percent female, and .7 percent prefer not to say. Mean and Std. Deviation were 1.54 and .513 respectively. A total of 48 percent of respondents were 14 (24%) and 15(24%) age group, 19.5

percent were in 13 age group. The rest of the respondents were from 10 to 12 and 16 to 19 age groups. The mean and Std. Deviation of age were 14.76 and 1.838 respectively. More respondents were from 9<sup>th</sup> (27.9%) and 10<sup>th</sup> (26.8%) standard. The mean of education (9.69) and Std. Deviation (1.694) are depicted in the table. Among the respondents 46.3 percent were Hindu, 27.5 percent were Christian, 4.9 percent were Muslim and 21.3 percent were from other religions. More than 50 percent (57.1%) of respondents were from the nuclear family, 35.9 percent of respondents were from a joint family and a few (7%) percent were from single-parent. Mean (5.59) represents the average number of members who live in the household.

Variables		Frequency	Percent	Mean	Std. Deviation
Gender	Male	133	46.3	1.54	.513
	Female	152	53.0		
	Prefer not	2	.7		
Age				14.76	1.838
Education	5	1	.3	9.69	1.694
	6	4	1.4		
	7	9	3.1		
	8	54	18.8		
	9	80	27.9		
	10	77	26.8		
	Plus 1	7	2.4		
	Plus 2	24	8.4		
	UG	31	10.8		
Religion	Hindu	133	46.3	2.01	1.169
	Christian	79	27.5		
	Muslim	14	4.9		
	Other	61	21.3		
	UG	31	10.8		
Family Type	Nuclear	164	57.1	1.50	.625

	Joint Family	103	35.9		
	Single Parent	20	7.0		
People live in a house hold				5.59	3.195

**Table 1.** Socio-Demographic Characteristics

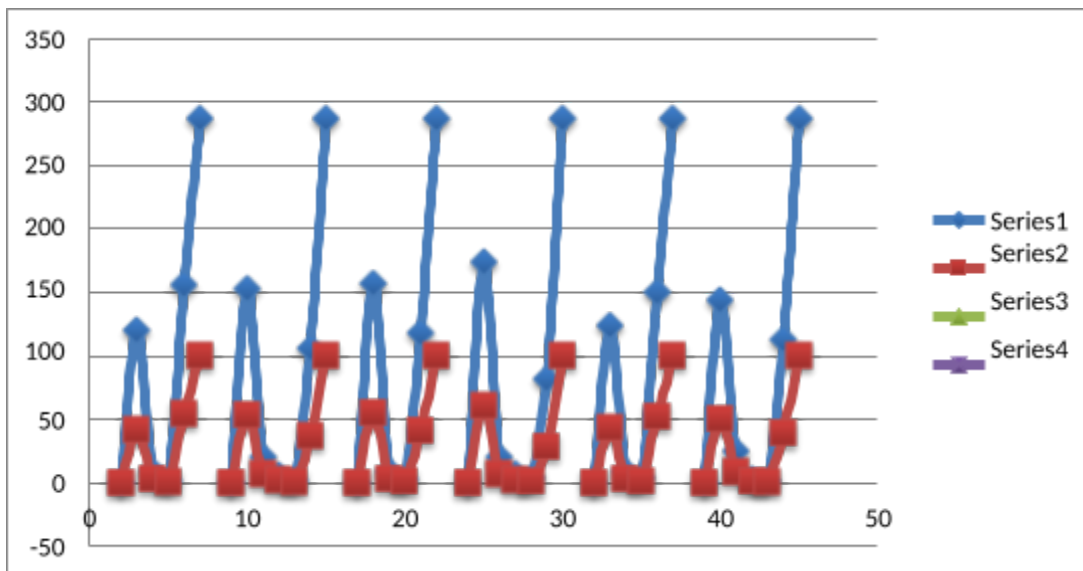
#### 4.2. Adolescents' Engagement in Social Media

Social Net working sites	Purpose							Total
	Educational purpose	Communication purpose	Chatting purpose	Entertainment purpose	Game purpose	Other purposes	No purpose	
WhatsApp	166	118	75	110	42	13	0	212
Facebook	32	32	26	30	18	1	0	43
YouTube	127	81	52	106	42	6	0	156
Instagram	55	54	48	56	26	1	0	79
TikTok	15	7	10	17	7	0	0	22
Twitter	9	8	4	5	4	0	0	10
Nil	0	0	0	0	0	0	1	1
<b>Total</b>	<b>211</b>	<b>139</b>	<b>87</b>	<b>154</b>	<b>55</b>	<b>15</b>	<b>1</b>	<b>287</b>

**Table 2.** Social Networking Sites and Purposes

The majority of respondents (73.9%) prefer WhatsApp, more than fifty percent (54.4%) prefer YouTube and 27.5 percent used Instagram, 15 percent used YouTube, and the rest of them used TikTok and Twitter. The major purposes in using social media are education (73.5%), entertainment (53.7%), communication (48.4%), chatting (30.3%), games (19.2%), and the rest of them have other purposes. Most of the respondents have preferred WhatsApp, YouTube, Instagram, and Facebook for educational, communication, and entertainment purposes respectively showed in **Table 2**.

### 4.3. Social Media Usages Before and During COVID-19



**Figure 1.** Social Media Usages Before and During COVID-19

The above **Figure 1** shows the increased social media usages during COVID-19 compared to before COVID-19. Among all the respondents 54.4% never used browsing social media content before COVID-19 and 36.9% never used browsing social media content during the pandemic crisis. Before the pandemic 41.8% of respondents and during the pandemic 53.3% of respondents spent 1-4 hours, 3.1% before and 7% during the pandemic spend 5-8 hours, 7% before and 2.1% during the pandemic spend 9-12 hours, none of them before and .7% during pandemic spend full time for browsing social media content. Of the total respondents, 41.1% before and 28.6% during



the COVID-19 pandemic never spend time chatting a day. Before 54.7% and during 60.6% spend 1-4hours, 3.1% before and 7% during spending 5-8 hours, 1% before and 2.4% during pandemic spend 9-12 hours, before pandemic none of them and 1.4% during crisis spend full time for chatting a day through social media. Among the respondents, 52.3% before and 39.4% during never participated by sharing and posting social media content. Before (43.2%) and during (50.2%) respondents spend 1-4 hours, before (3.1%) and during (8.7%) during spending 5-8 hours, before (1.4%) and during (1%) spend 9-12 hours, no one before and 7% participated in sharing and posting social media content.

The mean of browsing social media before COVID-19 was 3.22, and during COVID-19 was 2.61. The mean number of hours spent chatting before COVID-19 was 2.30 and during COVID-19 was 2.70. The mean of participating by sharing and posting social media content before COVID-19 and during COVID-19 was 3.15 and 2.70, respectively.

#### **4.3.1. Psychological Encroach**

Descriptive statistics revealed that 83 (28.9%) respondents had several days, 48 (16.7%) more than half of the days, 67 (23.3%) nearly every day, 89 (31%) were not at all anxious about COVID-19 pandemic and lockdown. Among the respondents, 21 (7.3%): larger extent, 60 (20.9%) medium extent, 109 (38%) smaller extent, 97 (33.8%) did not at all feel anxious while using social media during COVID-19. Among the respondents, 47 (16.4%) Larger extent, 94 (32.8%) medium extent, 89 (31%) smaller extent, 57 (19.9%) did not at all have the experience that social media made feel better when stressed, depressed or bored.

Chi-square test result ( $>.000$ ) denotes that there was a statistically significant relationship between anxiety about COVID-19 and feeling anxious when using social media during the COVID-19 pandemic.

#### **4.3.2. Effects of Social Media**

More than fifty percent of respondents (63.4%) agree that social media helped to cope with Lockdown. More than half (63.4%) of respondents are sure that social media has helped to minimise isolation. The majority of the respondents (84%) have identified that social media helped to do assignments and increased creativity.

	P-value					People live in a household
	Gender	Age	Education	Religion	Family Type	
Anxious when using social media during COVID-19	.673	.308	.280	.459	.116	.080
Social media make adolescents feel better when stressed, depressed, or bored	.016	.059	.527	.008	.522	.019
Anxious about COVID-19 Pandemic and Lockdown	.767	.463	.575	.239	.449	.153
Cope with lockdown	.274	.000	.000	.000	.025	.791
Minimise the negative effects of isolation	.321	.000	.001	.000	.001	.404
New assignment and creative activity	.158	.003	.000	.009	.393	.034

**Table 3.** Participants Characteristics and Effects of Social media

**Table 3** shows the association between the demographic characteristics of participants and social media effects. All the p-values are higher than 0.05 hence the result has not been significant. There is no significant association of having anxiety when using social media during COVID-19 concerning gender, age, education, religion, family type, among people living in a household. Hence the null hypothesis is accepted. The p-value of gender ( $<.016$ ), religion ( $<.008$ ), persons living in a household ( $<.019$ ) less than 0.05 hence the result has been significant. Social media makes adolescents feel better when stressed, depressed, or bored. It is significantly

associated with gender, religion, and people living in a household but not with education and family type. There is no statistical difference between age and social media to make feel better when stressed and depressed, or bored. The p-value was greater than 0.05 hence there is no significant relationship between anxiety about COVID-19 pandemic and lockdown with regard to gender, age, education, religion, family type, and people living in a household.

The table demonstrates that the p-value of age (<.000), education (<.000), religion (<.000), and family type (<.000), is less than 0.05 hence there has been a significant association with social media helping cope with lockdown and age, education, religion, family type and not with gender and people living in a household. The p-value of age (<.000), education (<.001), religion (<.000), and family type (<.001), is less than 0.05 hence there has been a significant association with social media minimizing the negative effects of isolation and age, education, religion, and family type but not with gender and people living in a household. Social media helps to do a new assignment and creative- activity closely related to age (<.003), education (<.000), religion (<.009), and people living in a household (<.034). The p-value is higher hence no significant relationship between gender and family type.

#### **4.3.3. Perceptions about Social Media and COVID-19 Lockdown**

Among the respondents 22.3 percent mildly agree, 19.5 percent strongly agree, 8 percent very strongly agree, and 33.4 percent stand neutral that young people who spend an increased amount of time in front of digital screens are more likely to exhibit symptoms of depression. Among the respondents 18.5 percent mildly agree, 31.7 percent strongly agree, 22.3 percent very strongly agree that most of the parents constantly complain that young people are addicted to social media and smartphones. Most of the respondents (20.2 percent mildly agree, 28.6 percent strongly agree, 19.2 very strongly agree) agree that social media has created an innovative method of study during the COVID-19 Lockdown. Among the respondents 38.3 percent very strongly disagree, 21.3 percent strongly disagree, 11.8 mildly disagree that online classes are better than classroom education. Among the respondents 4.5 percent very strongly agree, 10.1 percent strongly agree, 20.6 percent mildly agree, 37.6 neutral, 12.5 percent mildly disagree, 7.7 strongly disagree, and 7 percent very strongly disagree that adolescents were conscious about the amount of time they were spending on social media. The majority of respondents (12.2 percent very strongly agree, 25.8 percent strongly agree, 27.2 percent mildly agree, 24.7 percent neutral) agree that adolescents are using social media for positive content such as entertainment, humour,

and content creation. Few of them very strongly agree (6.6%), strongly agree (8.7 %), mildly agree (15%) agree that adolescents are using social media for negative content such as sharing risky behaviours, cyber bullying, and stressed posting. More than 50 percent agree that (23.7% very strongly agree, 26.5 % strongly agree, 24.4% mildly agree) social media can be a fantastic tool for uniting people during COVID-19 Lockdown.

COVID-19 pandemic has compelled the people to keep social distancing. Social distancing caused not only to increase usages of social media but also technology administered most of the day today activities. The study focuses on social media use and effects of social media among adolescent students. The major finding is that adolescents' use of social media sites included mainly WhatsApp, YouTube, Instagram, and Facebook. Few of them are engaged in TikTok and Twitter. Social, cultural, and environmental factors have influenced adolescents to be addicted to social media and other platforms. Adolescent's attitudes towards online games and other social media entertainment have been highly affected by the socio-economic status of the family and parent-child relationship. The study revealed that poor quality relationships paved the way to be more involved in media engagement (Fineberg et al., 2018). According to the present study, the main purpose of using the social media platform is education, entertainment, communication, chatting, and game. The respondents have preferred WhatsApp, YouTube, Instagram, and Facebook for educational, communication, and entertainment purposes respectively. Adolescents' most common purpose for using social media sites is communication and entertainment (Care, 2011). The research revealed that there is a high increase in the duration and use of social media before and during the COVID-19 pandemic. The level of Internet use among adolescents varies according to their parent's involvement in their life (Matin et al., 2020). The highest volume of interaction is done through YouTube and Twitter in terms of posting and comments (Cinelli et al., 2020).

The result shows that only a small percentage are not at all anxious about COVID-19 but most of them are anxious about this dangerous pandemic. During this pandemic, people have feelings of loneliness and low strength to cope with this distressful condition. Those who are enjoying the family support are having a high level of tolerance and mental health. (Liu et al., 2020).

Internet usages during this time have increased much longer than before (Duan et al., 2020). Post-traumatic stress disorder is positively correlated with an anxiety disorder (Li et al., 2020). The result shows that social media posts and videos have a great role to raise adolescents'

feelings of anxiety when using social media. Another thing is that social media has also helped them to reduce their stress, depression, and boredom. The current study revealed that adolescents are facing emotional distress and negative psychosocial effects during COVID-19 outbreak. (2020). The recent study related literature review shows social, individual, and familial coping abilities are the factors that affect the mental health of adolescents during the COVID-19 pandemic time (Benjamin et al., 2020).

Social media platforms helped the adolescent to cope with lockdown, minimise isolation, increased creativity, and encouraged to do assignment innovatively. Social media has a positive impact on the risk perception of the terrible pandemic (Luu & Huynh, 2020). A recent study suggested taking care of four things before advising adolescents, that is respect, motivation, privacy, and strength. The COVID-19 pandemic situation has created stress and the need for social isolation. To protect them give advice with respect and avoid threatening, motivate and support them to make their own informed choices, allow private time at home to talk with peers, utilise their strength in social media and family affairs (Akgül & Ph, 2020). Social media content search depends on daily incidences (Li et al., 2020). Social media exposure during the pandemic outbreak is positively associated with a high prevalence of mental health (Id et al., 2020). The present study revealed that there is an association between gender, religion, and people living in a household that uses social media and the feeling of being better when stressed, depressed, or bored. The main risk factors for depression and anxiety is behavioural changes and loneliness in this crisis period (Palgi et al., 2020). A cross-sectional study related to the psychological effects of the COVID-19 outbreak and lockdown among students and workers of a Spanish university exposed that the students had the feeling of high anxiety, depression and stress due to the impact of COVID-19 outbreak (Odriozola-González et al., 2020). Social media has a great role to spread fear and losing psychological well-being among adolescents during the COVID-19 outbreak (Ahmad & Murad, 2020).

There has been a significant association with social media that helps to cope with lockdown and age, education, religion, family type. There has been a significant association with social media to minimise the negative effects of isolation in regard with age, education, religion, and family type. Social media helps to start a new assignment and creative-activity closely related to age, education, religion, and people living in a household.

The findings of the present study shed light on most of the adolescents agreeing that young

people who spend an increased amount of time in front of digital screens are more likely to exhibit symptoms of depression. The majority of adolescents agree that most of the parents constantly complain that young people are addicted to social media and smartphones. Most of the respondents agree that social media created an innovative method of study during the COVID-19 Lockdown. Most of them disagree that online classes are better than classroom education. Some of them do not agree that adolescents are conscious about the amount of time they are spending on social media. The majority of respondents agree that adolescents are using social media for positive content such as entertainment, humour, and content creation and they do not agree with the fact that adolescents are using social media for negative content such as sharing risky behaviours, cyber-bullying, and stressed posting. Social media can be a fantastic tool for uniting people during COVID-19 Lockdown.

## 5. Conclusions

As consequences of the COVID-19 pandemic, social distancing and quarantine played an important role in changing the lifestyle of the people. The impact of isolation resulted in a high dependency on technology. The study exposed that social media had positive and negative effects on the psychosocial aspects of adolescents. Statistics revealed that adolescents enjoyed classroom teachings to virtual classes. During the Lockdown period, social media occupied them to be active and facilitated them to cope up with the pandemic situation. It made it possible to accelerate communication. COVID-19 Lockdown compelled the students to attend online classes that lead to the high use of mobile phone usages and social media engagements. It forced them to open social media accounts. The online classes caused adolescent students to experience stress, depression, or boredom in their daily life. The students spent free time playing online games.

The qualitative method was very helpful for the detailed study but was impossible during that period. The study on social media addiction, online game and academic achievements will be better for future studies.

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