



## Attitude of school going children towards school closure and its impact on screen time duration during COVID 19 Pandemic – an online survey

Dr. Jolly Bhattacharjya, Dr. Padmaja Barua, Dr. Bobbyjeet Goswami

*Associate Professor of Physiology, Gauhati Medical College & Hospital, Guwahati, Assam.*

*Assistant Professor of Physiology, Gauhati Medical College & Hospital, Guwahati, Assam.*

*Professor of Physiology cum Medical Superintendent, Lakhimpur Medical College & Hospital, Lakhimpur, Assam.*

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### ABSTRACT & KEYWORDS –

**Introduction** – In order to halt the Covid 19 transmission, lockdown was declared & schools also remained closed for a long time. To investigate the perception of the students towards school closure and its impact in their routine and life style, this study was conducted.

**Aim & objectives** - To understand the attitude of school going children towards school closure and its impact on screen time duration during COVID 19 Pandemic

**Materials and Methods** – This is a questionnaire based cross-sectional study. Data were collected by web-based survey from the students of 6 to 10<sup>th</sup> standards in Guwahati city

**Result** – In this study students respond positively that they missed going school in person (93.8%), missed their teachers (91.7%) and friends (93.8%). 66.7% students were worried for their studies thinking that they might be lagging behind in their studies and not performing well. Screen time duration of the students also increased and they (89.6 %) were also aware that this may have negative impact in their physical and mental health.

**Conclusion** – Pandemic related long-term school closure had negative impact on student's psychology and life style. Increased screen time may have adverse effect on the student's physical mental health as well as in academic performance.

**Key words** – Covid 19 pandemic, school closure, school going children, screen time.

report, schools remained closed in India for the second longest period in the world. (2) It has been almost more than 20 months; the education of millions of students had disrupted due to COVIDVIRUS pandemic linked lockdown and school closure. (3)

The school closure due to pandemic had created catastrophic emergency in education system. Online virtual classes had been started. But inability of students to access in person schooling had left some devastating consequences on the learning and wellbeing of the children. Majority of the children worldwide rely on school to interact with peer, play, learn extracurricular activities and seek support from teacher. This long period of school closure had cut off them from these critical elements of childhood. All these put an indefinite pause in the future of our children.

In a study done during H1N1 influenza pandemic, when schools were closed for a brief period in US, researchers reported that student's interaction with peer declined but their activities in relation to the grades did not reduce (4). In a study done during COVID 19 pandemic in Korea, author reported that middle school students showed preference towards in classroom learning because of their poor academic performance (5).

School closure and online classes may have impact on the screen time duration also which may affect health indirectly. Previous studies are available showing association of physical activity and low screen time with improved physical, psychosocial, and mental health among children and adolescents (6 – 10). For healthy lifestyle, although there is no fixed recommended time duration of screen time for children, but no more than 2 hours recreational screen time are advocated for the youth by the experts (11,12). Although a study in Shanghai reported drastic decrease in physical activity and increase in screen time among the children and adolescents (13). But studies

### I. INTRODUCTION -

Covid 19 or CORONAVIRUS pandemic was first detected at Wuhan, China and later spread worldwide and declared pandemic by WHO on 11<sup>th</sup> March 2020. (1) Like many other countries, Government of India also declared nationwide lockdown on 24<sup>th</sup> March 2020. As a result, schools were also being closed. Government tried to open the schools briefly in between the waves but as per



investigating the impact of COVID 19 on screen time of children are scarce.

Although the school was closed considering the safety of the students, to prevent the spread of the disease, but absence from in person schooling might have adverse impact on the behaviour and emotion of the students. As such, this study was designed, to investigate the attitude of school going students towards school closure and its impact on screen time during COVID 19 pandemic in Guwahati, Assam. The findings of this study may be helpful for better understanding of the student's behaviour during and after the pandemic towards education. And strategic plans can be designed accordingly to optimize learning.

**Aim & Objectives –** To understand the attitude of school going children towards school closure and its impact on screen time duration during COVID 19 Pandemic

**Method –**

Community based general sampling survey could not be performed because of the pandemic, therefore in this cross-sectional study, data were collected by web-based survey. The survey was conducted in the last phase of school closure from August to October 2021.

In this questionnaire based online survey, 11 questions were prepared and validated in the Department of Physiology, Gauhati medical college & Hospital, Guwahati, Assam. Out of these 11 questions first 7 were to understand the emotion and attitude of the students towards school closure and rest 4 questions were to investigate about the impact of school closure on screen time. The questionnaire consisted of multiple choice and agree disagree type of questions. The researchers

developed the electronic survey tool in google form. The cover page of the survey contained a brief overview of the purposes, voluntary nature of participation, and statements of confidentiality and anonymity. School going children from 6 to 10<sup>th</sup> standards from Guwahati city were selected for this study as younger children would not be able to understand the survey. The electronic survey was distributed to the students via WhatsApp.

The percentage of response were calculated automatically in the response of the google form. Correlation was measured using Chi-square test.

## II. RESULT –

In this cross-sectional study done in Department of Physiology, Gauhati Medical College & Hospital, Guwahati, Assam from August to October 2021, 48 students from different private schools of Guwahati, studying 6<sup>th</sup> to 10<sup>th</sup> standard participated. Out of which 14.6% (7) were male and 85.4% (41) were female. The students were of 11 to 16 years age. In this study, we have seen that most of the students [93.8% (45)] missed going to school in person. 91.7% (44) students responded that they missed seeing their teachers and 93.8% (45) students missed their friends. Although the students were not much stressed for the pandemic, but most of the students [66.7% (32)] thought that they were lagging behind in their study because of absence of in person schooling and also 79.2% (38) students admitted that they would be more upset if the school remain closed for a long period. All these responses of the students towards the questions to know their attitude towards school closure is shown in table 1.

Table 1 – Responses of the students against the questions to know their attitude towards school closure

	Yes (%)	No (%)
Did you miss going to school	93.8% (45)	6.3% (3)
Did you miss seeing your friends	93.8% (45)	6.3% (3)
Did you miss seeing your teachers	91.7% (44)	8.3% (4)
Longer the school remains close, more upset I become	79.2% (38)	20.8% (10)
Do you think that you are lagging behind in your study	66.7% (32)	33.3% (16)
I prefer school to be closed.	10.4% (5)	89.6% (43)
Stressed because of pandemic	37.5% (18)	56.3% (27)

In this study it was observed that although the screen time had been increased due to online classes but use of social media and online games also increased during the pandemic. 89.6 % (43) students used to spend 3 to 6 hrs per day using

social media and online games. But the positive aspect was that most of them [89.6 % (43)] were worried this excessive use of screen time might have adverse effect in their physical and mental health. These findings are shown in table 2.



Table 2 – Responses of the students for the questions to know the screen time

During this pandemic which one of your use patterns has increased	Online classes	35.4% (17)
	Online games	12.5% (6)
	Social Media	22.9% (11)
	Watching TV	6.3% (3)
	extracurricular activities	22.9% (11)
Average duration of total Screen time in hours/day	3 – 6 hrs/day	66.7% (32)
	7 – 10 hrs/day	31.3% (7)
	11 – 14 hrs/day	2.1% (1)
Average time of the day spend in using social media or online game	3 – 6 hrs/day	89.6 % (43)
	7 – 10 hrs/day	10.4% (5)
Are you worried that too much screen time may affect your physical and mental health?	Yes	89.6 % (43)
	No	10.4% (5)

In this study, researchers also tried to find any correlation of gender with screen time, social media use, stress perception due to COVID19, and upset due to school closure. Here we could find

significant positive correlation with gender and screen time only. Statistically Females showed significantly more screen time than the boys. This was shown in the following table no – 3.

Table 3: Chi-square test results of association

\* p<0.05 is significant

Variables	Pearson chi-Square value ( $\chi^2$ )	Significance value(p)
Gender and feeling upset due to school closure	.298	.585
Gender and satisfaction on study progress	1.505	.220
Gender and average duration of total screen time	6.907	.032*
Gender and using social media or online games	2.895	.089
Gender and stress perception due to COVID-19 pandemic	1.349	.245

### III. DISCUSSION –

The present survey conducted by researchers of Department of Physiology, Gauhati Medical College, aimed to provide an overview of students' attitude towards COVID 19 related school closure - with an intention to understand the school going children's emotion regarding school and education during the pandemic period.

Previous studies had provided evidences that public health problems, such as the COVID-19 pandemic, caused many emotional problems among students; such as anger, fear, anxiety, hopelessness, and boredom [14–16].

From this study it was clear that students were not happy with school closure. Infect they

were upset with school closure for such a long period. But in contrast to our finding a study in Iran indicated that despite the imposed situation, students showed enthusiasm towards learning and schools (17). Whereas a study in Qatar, summed up that students were not enthusiastic about the distance education during the pandemic (18), which is same as that of our study. It means that although the online teaching was implemented but it was not same as that of the in-person schooling as students like to meet their teachers and friends.

There was negative impact on student's performance in education due to covid 19 pandemic school closure. In this study students were worried about their educational and other



extra-curricular activity related performance. This result was same as the study done in China, where researchers found negative impact of school closures on student's achievement, specifically in younger students and students from families with low socioeconomic status(19).

In this study, it was also observed that the screen time duration of the students had increased during pandemic related school closure. The students were themselves worried that increase screen time due to online classes and more use of online games and social media may hamper their physical mental health and academic achievements. And it was already concluded in a previous study that increase screen time were associated with poor performance of children(20). In this study the increased screen time may be due to online classes and also may be combined effect of getting more spare time which was spend on social media, online games etc. In a study in Lucknow, researchers found similar type result of increase screen time duration among young adults (21).

This study also showed statistically significantly more screen time for girls than boys. Boys might be engaged more in some outdoor games than girls due to which screen time in boys less than girls. Small sample size specially that of boys may be another explanation for gender variation in screen time.

#### IV. CONCLUSION –

From this study this can be concluded that Covid 19 not only cost person's life but it also had many other collateral damages apart from physical health. Long duration school closure had negative impact on their education imparting many students lagging behind in their studies and extracurricular activities. It also had negative impact on student's psychology and life style. It had increased screen time which may in turn have adverse effect on the student's physical mental health as well as in academic performance. As the pandemic had deep impact on the psychology of the students as such students should be dealt very carefully by guardians and teachers.

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