

Covid-19 and Beyond- An Online Survey to Study The Impact of Covid-19 on High School Children in India

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Abstract

The COVID-19 pandemic presents an unprecedented challenge to the entire humankind. An ocean of uncertainty and anxiety surrounds all of us with villainous virus not only taking lives away but also affecting our day to day lives in many ways. The purpose of this short survey is to identify the risk factors to the psychological and physical health of high school students in INDIA

Key words: COVID-19, Physical and psychological impact, High School Students

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I. INTRODUCTION

The harshest of times are upon all of us in the form of pandemic COVID -19 which has consumed and is still consuming lives. The disease with little knowledge about its cause and effects has sent the whole world into a quagmire of uncertainty. With 28% children forming the entire world population, out of which 16% are in the age group of 16-19 years¹, it becomes imperative for us to study the mental and physical health impacts this virus is having on children. The students though have not suffered from the disease per say but they have borne the indirect brunt of the disease in the form of closure of schools², limited social interactions, lack of sports activities and complete online system of learning.

In an effort to determine the physical and psychological impact COVID-19 has caused on High School children in India, an online survey was conducted on 450 students. These students have not attended school physically (79%) since past one and half year and find the online system frustrating (89.33%). Though most of them like reading e-Books (55.12%) but the harm caused to eyes of these kids is immense. There is a two fold increase in the number of students who have started wearing spectacles (66.23%) after the online education system has been introduced owing to a drastic increase in their screen time. Apart from education, social media platforms (84.45%) have been found to be another contributing factor in decreasing eyesight. Use of non-supervised access to internet has further aggravated the problem. The survey revealed that though a few students find remaining in house under parental supervision enjoyable (57.77%) but others find interference of parents to be imposing (42.23%).

A large sample size has been found to show signs and symptoms of anxiety disorders in the form of high irritability (79.12%), picking up fights over petty issues (82.23%) and having disturbed sleep patterns (66.67%). Over eating has become rampant in a sizeable group (84%) leading to increased weight of many. Shockingly it has been found that a few have taken to substance abuse (4%) while a small number

of them intend to harm themselves (3.12%), thus alarming us with depressive disorders cropping up. Inability to share their feelings with friends and peers (86.67%) and crying more than pre-corona times has been noticed in a large group of children.

Obesity and lack of physical activity in this challenging time has led to hormonal disturbances like altered menstrual cycle in a few girls (32.07%) and symptoms like delayed facial hair appearance (11.25%) and voice not cracking up in some boys (5%). Adding to the loneliness of the high school students in the pandemic time, is the ghastly feeling of losing their family and friends (3.11%) apart from being unable to go out of their homes.

The ramifications of COVID-19 are much more than what the eyes meet. It has done enormous harm both physically and psychologically to our young generation. This survey gives us an opportunity to understand and use the results empirically so that we can avoid another epidemic, the "Epidemic of grief and sorrow" which is looming upon us once we are done with the COVID -19 pandemic. Schools, colleges and universities around the world along with parental support³ will have to prepare themselves to heal these innocent young souls.

Gender Demographics

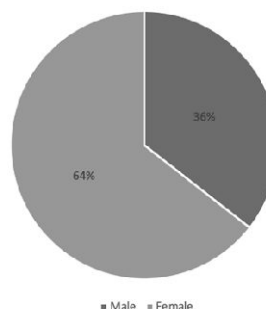


Fig 1: Gender demographics

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Class-wise division

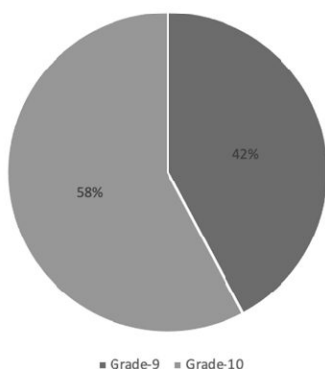


Fig 2: Class-wise division

School Attended In

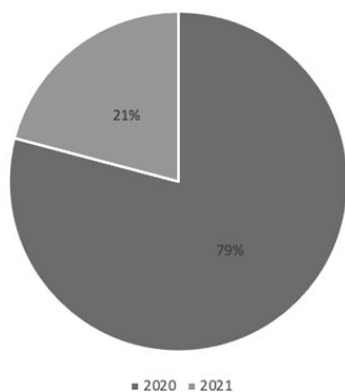


Fig 3: Last school attended

Research Question	Number (Percent) of positive replies	Number (Percent) of negative replies	Overall result
1-Do you find it frustrating not being able to go the school because of corona pandemic	402 (89.33)	48 (10.67)	Highly Positive
2-Do you like the traditional education system better?	398 (88.4)	52 (11.6)	Highly Positive
3-Do you miss the laboratory experience or athletics you could have enjoyed in your school?	412 (91.55)	38 (8.45)	Highly Positive
4-Do you find it difficult to understand some topics online as compared to the classical classroom experience?	296 (65.77)	154 (34.23)	Positive
5-Do you prefer to read textbooks in place of e-books?	202 (44.88)	248 (55.12)	Equi- vocal
6-If given a choice would you like to go to school?	410 (91.11)	40 (8.89)	Highly Positive

7-Have you become active on any social media platforms in the past year?	380 (84.45)	70 (15.55)	Positive
8-How much time do you spend each day on your social media accounts?			
spending less than 1 hour	106 (23.55)		
spending less than 1-2 hours	200 (44.45)		
spending more than 2 hours	104 (23.12)		
spending more than 5 hours	40 (8.88)		
9-Do you sometimes feel low/ irritated/ depressed/ aggressive at home?	356 (79.12)	94 (20.88)	Positive
10-Do you at times become irritable and pick fights for small issues?	370 (82.23)	80 (17.77)	Positive
11-Do you speak to your friends whenever you are feeling low?	410 (91.12)	40 (8.88)	Highly Positive
12-Do you feel better after speaking to your peers?	390 (86.67)	60 (13.33)	Highly Positive
13-Do you feel like skipping your meals and are not interested in food at times?	296 (65.77)	154 (34.23)	Positive
14-Do you feel like breaking free and being able to go out and play normally?	430 (95.55)	20 (4.45)	Highly Positive
15-Has your sleep pattern been altered in the past year?	300 (66.67)	150 (33.33)	Positive
16-Do you find remaining in the house under your parents' supervision enjoyable?	260 (57.77)	190 (42.23)	Equivocal
17-Do you feel like you are NOT able to speak your mind to others recently?	150 (33.33)	300 (66.67)	Negative
18-Have you taken to any kind of substance abuse in the previous year?	18 (4)	432 (96)	Highly negative
19-Do you cry more often now as compared to pre-corona times?	90 (20)	360 (80)	Negative
20-Did it ever cross your mind to harm yourself intentionally?	14 (3.12)	436 (96.88)	Highly Negative
21-Did you wear spectacles before the corona pandemic?	150 (33.33)	300 (66.67)	Weakly Positive
22-Do you wear spectacles presently? If you have answered YES in the previous question, has your power increased?	298 (66.23)	152 (33.77)	Positive
23-Do you think working on computer and mobile phone screens might have caused this?	310 (68.88)	140 (31.12)	Positive
24-Do you feel you are overeating at home?	378 (84)	72 (16)	Positive
25-Has your weight changed drastically in the last one year?	206 (45.78)	244 (54.22)	Equivocal

26-What was your weight pre covid-19?			
35-45 Kilograms	173 (38.44)		
45-55 Kilograms	139 (30.88)		
55-65 Kilograms	70 (15.56)		
65-75 Kilograms	34 (7.56)		
Above 75 Kilograms	34 (7.56)		
27-What is your current weight?			
35-45 Kilograms	70 (15.56)		
45-55 Kilograms	208 (46.21)		
55-65 Kilograms	104 (23.11)		
65-75 Kilograms	34 (7.56)		
	34 (7.56)		
28-Have you been doing some physical workout in the past year?	102 (22.67)	348 (77.33)	Negative
29-If you are a female, then is your menstrual cycle disturbed in the last year?	93 (32.07)	197 (67.93)	Weakly Positive
30-If you are a male, do you notice any of the following?			
Delay in facial hair appearance	18 (11.25)		Weakly Positive
Lesser height as compared to your peers	10 (6.25)	106 (66.25)	
Darker complexion as compared to peers	12 (7.5)		
Swelling over breast region	6 (3.75)		
Voice not cracking up	8 (5)		
31- Was there a lockdown imposed in your town/city during the hike in COVID-19 cases?	450 (100)	0 (0)	Highly Positive

32-Have you gone out of your house in the last 20 days?	108 (24)	342 (76)	Negative
33-Did anyone in your family suffer from corona virus?	88 (19.56)	362 (80.44)	Negative
34-Did anyone in your family lose his/her life due to corona virus?	14 (3.11)	436 (96.89)	Highly Negative

II. REFERENCES

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