



## BEHAVIOURAL AND PSYCHOLOGICAL IMPACT OF COVID -19 AND LOCKDOWN ON CHILDREN AND THEIR PARENTS

**Aakriti Khajuria**

Medical Officer, Acharya Shri Chander College Of Medical Sciences and Hospital

**Urvi Gupta**

Psychology Student, MIER College of Education.

**Ravinder K Gupta**

Prof &HOD Paediatrics, Acharya Shri Chander College Of Medical Sciences.

**Sunny Babber\***

Associate Professor, Department of Community Medicine, Acharya Shri Chander College Of Medical Sciences \*Corresponding Author

### ABSTRACT

**Background**= COVID-19 pandemic and lockdown brought about stress and a sense of anxiety and fear all around the globe. All this led to various short term as well as long term effect on the behaviour and psychology of children and adolescents and these changes were reported by the parents and guardians of the children who also had some effect on the way they took care of their child. Therefore, we conducted a pre- structured questionnaire-based study to see the various after effects of covid -19 and lockdown on the behaviour and psychology of the children in India who visited a tertiary care hospital in Jammu. **Aim And Objective**= The main aim of the study was to investigate the impact of covid-19 and lockdown on the mental health, behaviour and psychology of children and their parents by using a pre structured questionnaire. **Method And Material**= This cross sectional was conducted for a period of 3 months, from 1st jan2023 to 31st march 2023 using a pre structured questionnaire which was distributed to the parents of children from ages (3yrs to 15 years) attending the paediatrics department in these 3 months. Out of the total 450 parents who were provided with the questionnaire, 210 of them responded back with complete answers. Percentages of data collected was analysed and expressed in terms of percentages and proportions and their graphical representation was done by IBM SPSS 21 and quantitative data was expressed in terms of mean and standard deviation. **Result**= In this study we observed that there was an increase in the use of electronic gadgets, irritability, violence, hypo activity, anxiety and depression among children while there was decrease in activity of children, their grades and ability to learn new things. Parents of children had an altered behaviour and psychology after covid 19 and lockdown and there was increase in their stress, anxiousness and hygiene while feeding the child. **Conclusion**=Covid 19 and lockdown has a negative impact on the psychology of children as well as their parents ,therefore there is an urgent need of planning more and more studies and to combat these psychological changes, child and adolescent mental health policies must be made by government where, psychologists, psychiatrists and paediatricians, along with NGO's and social worker volunteers must be included to conduct sessions in schools to educate both parents and children and make them aware to overcome behavioural changes post pandemic.

**KEYWORDS** : Anxiety, Covid -19, Depression, Lockdown, Pandemic, Psychology.

### INTRODUCTION

Corona virus (COVID-19) is a viral disease affecting the respiratory system and is caused by the novel severe acute respiratory syndrome corona virus 2 (SARS-CoV-2) which primarily spreads via inhalation of respiratory droplets or by direct contact with contaminated surfaces<sup>1</sup>. COVID-19 outbreak started in Wuhan, China in late 2019 and spread across the world since then<sup>2</sup>. The first case in India was reported in Thrissur, Kerala on 30th January 2020 in some student who returned from Wuhan, China<sup>3</sup>. Since 2019, the pandemic has led to a significant global crisis and leading to the very rapid spread and thus high morbidity and mortality, therefore the World Health Organization (WHO) declared the COVID-19 outbreak as a global pandemic on March 11, 2020<sup>4</sup>. Some people experienced mild symptoms only like cough, fever, myalgia, headache, runny nose while few patients had to be admitted in hospital and suffered from pneumonia, loss of taste and smell sensations and even multi organ failure and many patients even succumbed to death<sup>5</sup>. Keeping in view the rapid spread and mortality, the prime minister of India declared "Lockdown" pan India starting from 25<sup>th</sup> march 2020 for the initial 21 days which further extended along with certain relaxations<sup>6</sup>. Lockdown ensured social distancing and thus decreased the spread and further decreased the Covid 19 cases in India after which the government kept on extending the lockdown period<sup>7</sup>. The Covid and lockdown, both had a deep effect on mental status and psychology of everyone. These impacts in turn were associated with negative affect. India experienced closure of educational and training institutions, malls, hotels and restaurants, cinemas, gyms, sports and recreational centres, and places of worship<sup>8</sup>.

Lockdown and Quarantine caused depression, fear, anxiety, constant feeling of loneliness, loss of appetite, sleep disturbances and even panic attacks and post traumatic stress disorders in some cases<sup>9</sup>. More effect was noted in toddlers, students and health care professionals. Many people lost their jobs especially the daily wage workers and some of them even committed suicide which further added more to the stress in the society. The broadcast of all the covid related news also had a major depressive effect on the mental status of all especially the young kids<sup>10</sup>. As the schools were closed due to lockdown, in order to continue the education process, the online classes were introduced in most of the countries, including India. The teachers took online classes for which children used phones, tabs and laptops for quite a long duration which not only affected their vision but also lead to more anxiety and decrease in academics and moreover the children became more vulnerable to social media<sup>11</sup>. This prolonged screen time made children lazy and hypoactive as they couldn't go out to play due to the lockdown, while some parents also complained their children being more violent and irritable<sup>12</sup>. The covid caused a great havoc and sooner the world recovered by its effects. On may 5, 2023, WHO declared that the covid -19 was no longer an emergency. Even after the Covid wave was finished children worldwide, couldn't get over this habit of using social media, electronic devices and online surfing for a longer duration. All this had a negative impact on the mental and physical health of almost every child and these changes were reported by the parents and guardians of the children. Moreover the parents / guardians also had some effect on the way they took care of their child. Therefore, we conducted a pre- structured questionnaire based study to see

the various after effects of covid -19 and lockdown on the behaviour and psychology of the children and their parents in India.

**AIM AND OBJECTIVE**

This study aims to investigate the impact of covid-19 and lockdown on the mental health, behaviour and psychology of children and their parents by using a pre structured questionnaire.

**METHODS AND MATERIALS**

This study was conducted in the Post graduate Department of Paediatrics in Acharya Shri Chander College of Medical Sciences and Hospital after getting approval from the institutional ethical committee with reference no. ASCOMS /IEC/RP&T/500 Dated 21.05.22.

This cross sectional was conducted for a period of 3 months, from 1<sup>st</sup> jan2023 to 31<sup>st</sup> march2023 using a pre structured questionnaire which was distributed to the parents of children from ages (3yrs to 15 yrs) attending the paediatrics department in these 3 months. The printed questionnaire was given to the couple and they were requested that either the father or mother, one of them has to fill the form regarding the child for whom they were attending the OPD.

**Inclusion Criterion**

Parents of child attending the paediatric OPD and age of their child falling between 3-15 years. (3 and 15 both are included)

**Exclusion Criterion**

Parents of child attending the paediatric OPD and age of their child <3 yrs. or > 15 yrs.

The questionnaire contained 6 questions based on the socio demographic profile, 13 Questions regarding behaviour of children post covid and 6 questions regarding behavioural pattern and psychology of parents after covid- 19 and lockdown. A total of 450 parents were provided with the questionnaire and out of them 235 parents responded back with the answers (response rate 52.22) and among these 235, 25 questionnaires were incomplete. Hence, we analyzed the remaining 210 completely answered questionnaire. The quantitative data was expressed in terms of percentages and proportions and their graphical representation was done by IBM SPSS 21 and quantitative data was expressed in terms of mean and standard deviation.

**RESULTS**

In this study, Table 1, shows the Socio demographic profile where out of the 210 parents who filled the questionnaire, 38.1% (n= 80) were filled by fathers while 61.9% (n= 130) were filled by their mothers respectively. Among The participating parents, 64.76% (n=136) were less than 35yrs of age whereas 35.25% (n=74) were more than 35yrs of age. When considering the occupation of the participating parents, maximum no. of them were government employees 26.67% (n=56) and only 9.52% (n=20) were involved in private sector. Out of 210 participants, majority of them i.e. 75.24% (n= 158) had nuclear families while only 24.76 % (n=52) were living in a joint family. These 210 parents had filled data about their 210 children respectively out of which 58.1% (n=122) were girl child and 41.9% (n=88) were boy child. As the age group of the children was between 3yrs- 15 yrs , maximum no. of these children i.e.46.67% (n=98) went to preschool , whereas 33.33% (n=70) of them went to 1<sup>st</sup> to 5<sup>th</sup> class and only 20% (n=42) were the ones who studied in class 6<sup>th</sup> to 10<sup>th</sup>.

**Table 1. Socio Demographic Profile Of Sample**

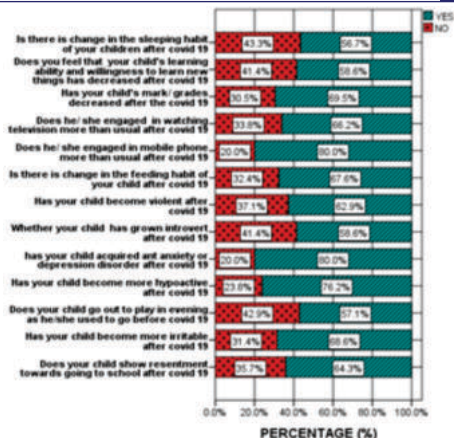
Variables	Frequency (N)	Percentage (%)
Gender of parent		
Male	80	38.1
Female	130	61.9

Profession of the parent		
Government job	56	26.67
Private job	20	9.52
Self employed	35	16.67
Businessman	43	20.48
Others	56	26.67
Family type		
Nuclear family	158	75.24
Joint family	52	24.76
Gender of children		
Male	88	41.9
Female	122	58.1
Which class does your child study?		
Pre-school	98	46.67
Class 1 to class 5	70	33.33
Class 6 to class 10	42	20
Age of parents		
<35	136	64.76
≥35	74	35.24

Table 2 and Graph 1, shows Answers regarding behaviour of the children post covid where we saw that majority of parents i.e. 76.19% (n= 160) agreed that their child has become more hypoactive after covid 19 and lockdown. Also. Almost 80% of parents agreed to the fact that their child has started using mobile phone more than usual after covid -19 and similar percentage of parents complained that their child has acquired either anxiety or depression disorder after covid 19. Some parents (69.52%), also said that their child's mark/ grades have been decreased after the covid 19, lockdown and online classes. Also many parents said that their child's feeding (67.62%) and sleeping (56.67%) has been affected due to lockdown.

**Table 2. Behavioural Pattern Of Children After Covid 19**

Questioners regarding behaviour of children post covid	Yes	%	No	%
Does your child show resentment towards going to school after covid 19	135	64.29	65	30.95
Has your child become more irritable after covid 19	144	68.57	66	31.43
Does your child go out to play in evening as he/she used to go before covid 19	120	57.14	90	42.86
Has your child become more hypoactive after covid 19	160	76.19	50	23.81
has your child acquired and anxiety or depression disorder after covid 19	168	80	42	20
Whether your child has grown introvert after covid 19	123	58.57	87	41.43
Has your child become violent after covid 19	132	62.86	78	37.14
Is there is change in the feeding habit of your child after covid 19	142	67.62	68	32.38
Does he/ she engaged in mobile phone more than usual after covid 19	168	80	42	20
Does he/ she engaged in watching television more than usual after covid 19	139	66.19	71	33.81
Has your child's mark/ grades decreased after the covid 19	146	69.52	74	35.24
Does you feel that your child's learning ability and willingness to learn new things has decreased after covid 19	123	58.57	87	41.43
Is there is change in the sleeping habit of your children after covid 19	119	56.67	91	43.33

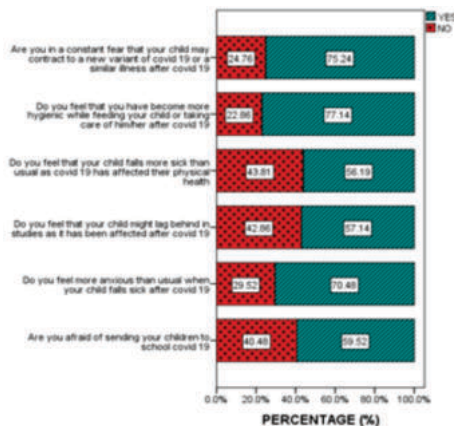


Graph 1: Behavioural Pattern Of Children

Table 3 and Graph 2, shows Behavioural pattern of parents after covid 19 where 77.14% of parents said that they feel that they have become more hygienic while feeding their child or taking care of him/her after covid 19 and almost equal percent of them (75.24%) of parents said that they are in a constant fear that their child may contract a new variant of covid 19 or a similar illness after covid 19. About 70.48% of parents said that they feel more anxious than usual when their child falls sick after covid 19. About 57.14% are in a constant fear that their child might lag behind in studies as it has been affected after covid 19 and online classes.

Table 3. Behavioural Pattern Of Parents After Covid 19

Categorical variables	Yes		No	
	N	%	N	%
Are you afraid of sending your children to school covid 19	125	59.52	85	40.48
Do you feel more anxious than usual when your child falls sick after covid 19	148	70.48	62	29.52
Do you feel that your child might lag behind in studies as it has been affected after covid 19	120	57.14	90	42.86
Do you feel that your child falls more sick than usual as covid 19 has affected their physical health	118	56.19	92	43.81
Do you feel that you have become more hygienic while feeding your child or taking care of him/her after covid 19	162	77.14	48	22.86
Are you in a constant fear that your child may contract to a new variant of covid 19 or a similar illness after covid 19	158	75.24	52	24.76



Graph 2: Behavioural Pattern Of Parents After Covid 19

DISCUSSION

In the present study we saw that 76.19% parents said that their child has become more hypoactive after covid 19 and lockdown. Likewise a study done by Mallik CI<sup>13</sup> in Bangladesh also shows similar findings of 69% children becoming hypoactive and lazy after the lockdown. While in a study done by R Shah<sup>14</sup> shows that During and after the lockdown period, there was slight or marked increase in the activity level (50.1%) and irritability (45.8%) and also worsening of symptoms of ADHD in the form of increase of hyper activity.

In this study almost 80% parents complained about their children having either anxiety or depression after lockdown which is in sync with a Study done in United States by Rozen Z.et.al.<sup>15</sup> which shows similar results of 60% children having either anxiety or depression disorder after covid 19 and lockdown. One study in China, by Tang et.al<sup>16</sup> during the COVID-19 pandemic, showed most prevalent symptoms among children and adolescents were anxiety 24.9 %, depression 19.7 % and stress 15.2 %.

Our study shows that majority of parents complained that their children started excessive use of mobile phones, tabs, laptops and television during and after the lockdown. Another study done in China by Jiao WY<sup>17</sup> confirms the same. Similar study done by Ratan ZA<sup>18</sup> highlights the problematic use of smartphone which leads to various mental health disorders like decrease in vision, headache and neck and shoulder pain.

In the present study, we observed that many parents said that their child's feeding (67.62%) and sleeping (56.67%) has been affected due to lockdown. Similarly , a study done in Punjab in India, by Sama BK<sup>19</sup> shows that 18.7% and 17.6% of the parents mentioned the symptoms of depression and anxiety, respectively, among their children, which were also augmented by the changes in their diet, sleep, weight and more usage of the electronic equipment. Globally also Sleep disturbances were reported in a portion of 20% of children in a study done in China<sup>20</sup>.

In this study, we saw that 77.14% of parents said that they feel that they have become more hygienic while feeding their child as they are afraid of their child falling ill. Globally this was in sync with study done by Moore LD<sup>21</sup> which showed 46% increase in hand hygiene after covid -19 pandemic. A research done by Pereira A<sup>22</sup> highlighted that mothers became more cautious in breast feeding the baby after covid 19.

We also observed that majority of parents are in a constant fear of their child contracting a new variant of covid 19 or a similar illness after covid 19 and feel more anxious than usual when their child falls sick after covid 19. Comparing the global data, a study done in Italy<sup>23</sup> also shows majority parents having unusual that their child may get sick and get anxious about it. In our study about 56% parents are in a fear that their child's studies have been affected by lockdown and online studies and they might lag behind. A study done by Ambika Selvaraj<sup>24</sup> shows that although online teaching in lockdown was a easy and convenient method to complete syllabus on time but it had a negative impact on the marks of students once offline classes were resumed.

CONCLUSION

Covid 19 and lockdown had various negative effects on the psychology of children and their behaviour. It also affected the psychology of their parents and guardians. It has lead to increase in overuse of electronic gadgets, irritability, violence, hypo activity, anxiety and depression among children while there was decrease in activity of children, their grades and ability to learn new things. Parents of children had an altered behaviour and psychology after covid 19 and lockdown and there was increase in their stress, anxiousness and hygiene

while feeding the child. Also, there is a need for planning more and more studies, and implementing evidence based action to cater to the behavioural and mental health needs of the children and adolescents after the pandemic and lockdown. To combat these changes, child and adolescent mental health policies must be made by government where, psychologists, psychiatrists and paediatricians, along with NGO's and social worker volunteers must be included to conduct sessions in schools to educate both parents and children and make them aware on how to come out of behavioural changes post pandemic.

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